

AIRFIX

MAGAZINE — The Modellers Choice

JANUARY 1987

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AIRFIX

MAGAZINE

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Our February issue includes:

- ★ HMS Prince of Wales - kit review
- ★ The Lancaster
- ★ The Scorpion (Belgian version)
- ★ Vacform review

Make sure of your copy by subscribing today - fill in form on page 11

ISSN 0951-0397

ON THE COVER

Our front page picture this month is of the Scorpion Reconnaissance vehicle which is reviewed, starting on page 21.

JANUARY 1987

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Airfix Magazine is published on the last Friday of each month.

DESIGNED, PRINTED AND PUBLISHED BY

Printwize (Publications) Ltd., Units 5&6
Crittall Road, Witham, Essex. CM8 3BA

EDITORIAL & ADVERTISING OFFICE

Airfix Magazine, 6, Crittall Road,
Witham, Essex. CM8 3BA

Tel: (0376) 517633

SUBSCRIPTIONS

U.K.: £18.00 per annum

Europe: £20.00 per annum

U.S.A., Canada, Australia and New Zealand:

Address as above.

*U.S.\$36.00 per annum

DISTRIBUTION

U.K., Europe, Canada, Australia and New Zealand: Profile Books, Pontiac Works, Fernbank Road, Ascot, Berks. North American Distribution to hobby and craft stores, museums and book shops by:

Bill Dean Books Ltd.,
151-49, Seventh Avenue,
Whitestone, New York 11357,
USA Tel: 1-718-767-6632

(Same address for subscriptions)

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choice!

★ THIS MONTH'S COMPETITION ★

ALL YOU HAVE TO DO:

Is simply study the articles in this month's Airfix Magazine carefully - The answers to the following six questions can be found somewhere in the various articles.

- 1 What is the main material used in "A Brief Encounter"?
- 2 When did Peter Bourne first become interested in models and modelling?
- 3 Which two armoured cars did the Scorpion replace?
- 4 What date did the first Etendard IV take to the air?
- 5 What did the Green Zone feature at EXPO '86?
- 6 When was the first Heathrow Swapmeet held?

Send your entry to:

January Competition, Airfix Magazine

5/6 Crittall Road, Witham, Essex CM8 3BA.

The judges decision is final and no correspondence will be entered into.

The winners will be the first three correct entries opened after the closing date of 15th February, 1987 and will be announced in the March issue.

1st PRIZE: 1/72 scale Republic F-105F Thunderchief (Airfix)

2nd PRIZE: 1/72 scale Toned Down Phantom (ESCI)

3rd PRIZE: 1/72 scale Montgomery's Dakota 9023 (ESCI)

All the above prizes have been kindly supplied by The Aviation Hobby Shop, 4 Horton Parade, Horton Road, West Drayton, Middlesex.

LAST MONTHS COMPETITION

Due to the Christmas post and the earlier deadline required for this issue, last months competition winners will be announced in the February issue.

"JUNIOR CORNER"

Peter Bourne is a youngster who didn't take long to 'get off the mark' in contacting us about his modelling and collecting interests, in response to December's issue!

As he doesn't live far from the Editor, a visit to talk to him and get a few photographs seemed a good idea!

Peter, 13 years of age, lives with his Mother and Father, brother John and sister Fiona in a nice terraced house, and it is evident as soon as one enters the sitting room that it is a collector's house, for a very large collection of Lledo promotional diecast vehicles of all shapes and types adorns two large built-in showcases, some of the rarer ones also being present. It's obvious where Peter gets his modelling and collecting interest from!

Peter first became interested in models and modelling in 1983, and the interest was indeed 'sparked off' by visiting swapmeets and model shops with his Dad Rodney who is a local government officer with Richmond Council. Dad was searching for specific Lledo 'specials'; "But I wanted to collect something better than what he was collecting" said Peter. "Solido models from France caught my eye; I've always been interested in the military world, reading lots of books on the subject of AFVs...the Solidos were a

bit expensive, but Dad paid for them."

He was initially interested in plastic kits, indeed still is, one of his first kits being a JU.87 'Stuka'... "I wasn't too happy with the outcome of that first attempt...like all first timers most of the glue ended up on me" he said good naturedly, "but I'm lots better now!",

He has finished quite a few aircraft, a couple of cars and is at the moment utilising every spare moment building a model of Tirpitz by Monogram...that is when he isn't playing military games such as Beahead on his computer! "I started Tirpitz because I just had the urge to 'go marine'." He also built a successful motorised Suzuki and really, Peter is indicative of the new breed of junior modeller/collectors...they don't mind diversifying...he likes building kits, having constructed quite a few by now, but also enjoys the 'feel' of metal models, and collects Dinky, Corgi, Solido and others too. "I like both kinds of materials, and they all look good together when they are on display" he told me... "I'll continue mixing plastic and metal, as long as they are military, naval or aviation models." Amen to that Peter, and thanks for the story! Who's going to be next to tell us about their modelling and collecting?



Airfix Magazine reader Peter Bourne; not difficult to see where his interest lies!

"EDITORIALLY SPEAKING"

It is obvious, having talked to many Airfix readers at the recent Heathrow model 'happening' that the vast majority agree with the sentiments expressed in last month's E.S. column, and that the policy of maintaining the 'kit' interest, whilst at the same time broadening the appeal to include subjects not covered since the magazine was originally launched way back in the late fifties is going to be welcome. This was also echoed in the telephone calls and letters so far received.

As I write this month's columns, putting my thoughts down on paper, Earls Court is imminent; there are bound to be many releases appealing to the adult 'stable' age group within the hobby, which is as it should be, but what does the hobby have for the youngster, the enthusiast of tomorrow whom we are endeavouring to attract today? Youngsters are so spoilt for choice nowadays, with the availability of computers, video games, video cameras... (yes.. expensive but many families do have them... and their offspring are using them!) and other sophisticated 'toys' it's no wonder that the more traditional pastimes have either fallen by the wayside, or are going through a bad patch. Kitbuilding has always been popular...but the trend now does seem to be for the youngster who is a strict

devotee to be the purchaser of kits, rather than just about every youngster pursuing the hobby. Model railways have been through several worrying patches in the past few years; I feel that Hornby and Airfix had the right idea in launching their multi-train systems...but perhaps the publicity was not quite imaginative...Marklin and Fleischmann seem to be being more commercial in the launch of their systems...and the publicity quite a bit more imaginative.

Youngsters are more sophisticated in their outlook, and it is up to the industry to nurture interest in models and modelling as I said last month...the old methods won't always work so what's next? Transformers? An interesting idea, again, a step in the right direction their popularity denoting the juvenile need for something a bit different, also incidentally and unfortunately showing their current mood of impatience, everything having to be 'instant'...all playthings almost instantly outliving their usefulness...the transformers pandering to this mood by being instantly changeable...eg Robot into tank...Tank into aircraft... Aircraft into car ad finitum...and after an hour ad nauseum! *Imagination* is the key word that the manufacturers should be heeding. Look at the fantastic success for instance of LEGO! O.K. so it's aimed at the 'younger'

child, but the essence is spot on...it enables the child to use his imagination in building and constructing whatever he so (or she) desires! On the kit side, I think that the STEALTH release was a step in the right direction! As for the future... what does it hold? A combination of construction and electronics perhaps? We shall see maybe a model airport, featuring aircraft that the young enthusiast has built from small scale kits, which can be linked via a hook between the wheels to an unobtrusive track. The junior operator then sits at a control console that has been plugged in to his home Sinclair, and he controls the airport or military airfield movements...dispensing aircraft... taking them up to take-off when they simply run off the edge of the diorama? Don't forget my royalties whomsoever picks the idea up! Incidentally, airport/field back-up vehicles could also be featured in the set...

Meanwhile, our team will be visiting Earls Court, and shall be featuring full report of the British Toys and Hobbies Fair 1987... the comprehensive feature including all models...plastic kits, diecasts, steam boats and vehicles, aircraft and railway. It will be the most complete report on all model interests ever given in any publication...so watch out for the March special! Happy modelling and collecting until next month!



Airfix F-111E with Microscale Decals 72-542 for 48 TFW

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Airfix Gloster Meteor III	1:72	£1.95
Airfix PBV Catalina	1:72	£4.50
Hasegawa Mil 24 Hind A	1:72	£8.75
Hasegawa F-4J Phantom VX-4 High-Tech	1:48	£26.99
Italeri F-19 Stealth Fighter	1:72	£2.99
Italeri Classic Opel Fire Truck	1:24	£9.99
Italeri DAF Dump Truck	1:24	£12.99
Nichimo Hunter F6	1:48	£8.99
Contrail Tu 147 Bosun Vacform	1:72	£6.00
M & E Models Spitfire Mk9 Two Seat Conversion	1:72	£3.95
Aeroguide Special E.A.P.		£3.95
Detail and Scale B-47 Stratojet		£6.95
New Experts-choice decals (formerly bare metal)	1:48	£2.80
EC48-09 F-4D Phantom 148 FIG Minnesota ANG		
EC48-11 F-4C Phantom 147 FIG Texas ANG		
EC48-12 F-106A Delta Dart 94 FIS (2 styles), 2 FIS William Tell 1972		
EC48-13 Air National Guard Badges. Various styles and colours.		
Kits and Book UK Postage £2.00 over £25.00 Post Free.		

1987 NEW RELEASES

● 1987 NEW RELEASES ● 1987 NEW RELEASES ● 1987 NEW RELEASES ●

The following columns contain the latest information received on new releases for 1987.
Actual release dates will be announced in future issues.



All 1:72 scale unless stated otherwise.
(Except classic ships where the scale has yet to be announced).

Standard Range

01002 Gloster Gladiator Mk1
01007 Supermarine S6B
01015 De Havilland Tiger Moth
01017 MiG 15
01030 Messerschmitt Me 262 A
01031 Boulton Paul Defiant NFI
01053 Cessna 0-2
01055 Bristol Bulldog
01073 Grumman Widgeon/Gosling
02002 Supermarine Walrus II
02003 Bristol Beaufighter TFX
02009 Avro Anson I
02022 Douglas Dauntless
02024 MiG 21
02031 Curtiss SB2C Helldiver

02034 Douglas TBD-1 Devastator
02039 Saab Draken
02053 Westland Lysander
02054 Vought F4U-1D Corsair
02064 Westland Whirlwind
03012 Handley Page Jetstream
03014 Blohm & Voss Bv141
03017 DHC Beaver
03034 Petlyakov Pe2
04023 McDonnell F2H Banshee
04101 Messerschmitt BF109F 1:48
04102 Hawker Hurricane MkI 1:48
05011 Douglas Invader A-26 B/C
05018 Martin B-57/RB-57E Canberra
07001 Boeing B-29 Superfortress
07002 Short Stirling Bl/III
07100 De Havilland Mosquito FBVI 1:48
09175 Panavia Tornado ADV F3 1:48
10001 Lockheed Hercules AC 130H Gunship
12001 Supermarine Spitfire 1A 1:24
01709 8th Army
01711 Afrika Korps
01732 British Commandos
01736 Waterloo French Cavalry
01737 Waterloo French Artillery
01739 Washington's Army
01740 British Grenadiers 1776
01743 Waterloo British Cavalry
01747 RAF Personnel
01748 USAAF Personnel
01753 German Paratroopers
01755 Luftwaffe Personnel
51551 German Infantry 1:32
51553 Russian Infantry 1:32
51555 Japanese Infantry 1:32

51556 8th Army 1:32
51557 Afrika Korps 1:32
51578 S.A.S. 1:32
51579 Modern U.S. NATO 1:32
51580 Modern Russian 1:32

Vintage Aircraft Range

01074 Fokker Drl Triplane
01075 Sopwith 2F1 Camel
01076 RE8
01077 Roland C-11
01078 Albatros DVa
01079 De Havilland DH4

Modern Airliner Range

03181 Boeing 737 1:144
03182 McDonnell-Douglas DC-9 1:144
03183 Boeing 727-200 1:144
06178 Lockheed Tristar 1:144
06179 A300B Airbus 1:144
08174 Boeing 747 1:144

Classic Ship Range

08251 Revenge
08252 PS Great Western
09252 HMS Victory
09253 Cutty Sark
09256 Wasa
09259 Bounty

Historic Car Range

02444 Rolls Royce 1911
02446 Bentley 1930
02449 Mercedes 1904



The dates of release are approximate and are subject to change.

ALL 1:72 SCALE AIRCRAFT

PK42 North American Buckeye (May)
PK43 Bell (July)
PK44 Mirage (Jan/Feb)
PK45 Harrier GR3 (Feb)
PK46 Hawk 200 (June)
PK47 Dassault Mystere (June)
PK129 Gloster Meteor (July)
PK130 Tornado (April)
PK131 Saab Viggen (Feb)
PK413 Chinook Helicopter (July/August)
OH58D Helicopter (July)

PLUS
2 NEW GIFT SETS OF 4 KITS EACH
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A) JET ATTACK AIRCRAFT

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2 TANKS: Humber, Panzer
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8th Army,
Afrika Corps
(Complete with Diorama)



HASEGAWA NEW RELEASES 1987

P12 1:48 A-7E Corsair II (US Navy)
P13 1:48 A-7D Corsair II (U.S.A.F.)
P14 1:48 A-7E Corsair II (Low Visibility)
K19 1:72 Mi 24 Hind A
K20 1:72 Mi 24 Hind D
K21 1:72 Mi 24 Hind E
V3 1:48 F-16C Fighting Falcon
K15 1:72 P-3C Orion (Update II)
813 1:72 SH-60J Seahawk (JMSDF)
CA6 1:24 Jaguar TWR Sports
CA7 1:24 Porsche 959
CA8 1:24 Porsche 961
613 1:72 OA-4M Skyhawk
K22 1:72 MiG 29 Fulcrum
CH3 1:32 Fockle Wulf Fw190D-9
CH5 1:32 Messerschmitt Me262B
CH6 1:32 OA-4M Skyhawk
CH7 1:32 RF-5E Tiger Eye
CB1 1:24 Cadillac Coupe De Ville '66
CB2 1:24 Buick Wildcat '66
CB3 1:24 Pontiac Bonneville '66
CB4 1:24 Chevrolet Impala '66
CB5 1:24 Ford Thunderbird '66
MA3 1:72 M1E1 Abrams

AIRCRAFT

1:72 Sabre Blue Impulse F-86F
1:72 JU87 G-2 STUKA
1:72 PHANTOM FG1
1:72 PHANTOM FGR 2
(1st 2 genuine)
1:72 KV107 SEA KNIGHT (4 versions)

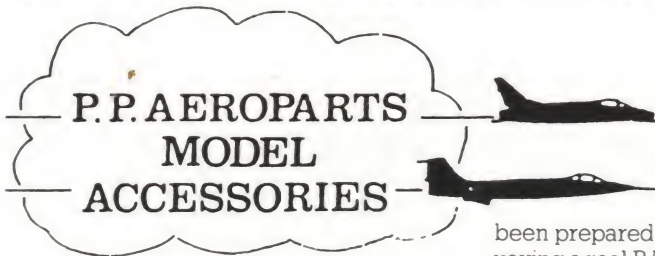
CARS

1:16 FERRARI KOENIG TESTAROSSA
1:16 FERRARI 288 GTO
1:24 FERRARI DINO 246 GT (Later Type)
1:24 FERRARI DINO 246 GT (Earlier Type)

NICHIMO

1:48 HAWKER HUNTER
1:24 LOTUS ESPRIT

available from
TOYWAYS
79 Pixmore Way, Letchworth, Hertfordshire.



Now, new kits!! After a delay of a month or so, our most elaborate kit so far is now out! GA707 RAF Eager Beaver Fork Lift Truck is ready for sale, at a recommended retail price of £19.50. And just what will the modeller get for his money? 48 cast white metal parts, plus spares of the smaller items, 48 etched brass parts, again with spares. Waterslide decal sheet, plastic rod and tube, and copper wire for the hydraulic lines, 6 (yes SIX!) pages of instructions, which we recommend are thoroughly read before assembly is started. Parts are packed in small numbers in plastic bags for safety, and contained in a strong box for protection. The box carries a colour photo of a completed model as a guide for colours and final details. This kit is unlike anything released before, and as well as appealing to the aircraft diorama modeller, will also be of great interest to the military vehicle modeller. Scaled at 1:72 to match the standard aircraft size, as well as the majority of plastic armour kits, this highly detailed model has

been prepared from data collected by surveying a real RAF vehicle at RAF Lyneham, and we believe is the most complete and accurate model of its kind ever!

As an addition to the Eager Beaver, we have a driver figure, FIG701, available separately at 55p. This was prepared for us by Alyn Nicholls and Premier Productions Ltd, who make the Airwaves figures. We now keep the rest of the Airwaves range in 1:72 and 1:48, as well as the 1:72 and 1:48 figures by New Hope Design. Full details will be included in our new catalogue which will be ready very shortly; apologies again for the delay with this as well!!

Also released is GA705, RAF Houchin Ground Power Unit. A follow-on kit to the popular Oxygen and Nitrogen trolleys released earlier, this kit contains 31 castings, 22 etchings, spare parts in case of loss or damage, wire and decals, and again complete assembly instructions.

Also given are the power plug positions for several popular aircraft types to show the modeller where the cables are attached. This kit was researched at RAF

Address as
advertisement
on Page 31.

For naval modellers, a visit to the local hobby shop is now recommended. There you should be fortunate enough to discover an example of the new Tamiya 1:350 scale, HMS *Prince of Wales*, on display.

The box-top artwork is worthy of comment because of its striking representation of the *Prince of Wales* underway, in company with her companion in her last operation, the *Repulse*. A suitable item for display by itself.

This first favourable impression is only the start of yet another rewarding modelling experience from this manufacturer, whose reputation in producing superb 'big ship' kits, is by now very well known. I knew basically what to expect from the new *Prince of Wales*, after my involvement with the earlier HMS *King George V*. But even after all my exposure to the members of this growing collection, surprises still occur, and the *Prince of Wales* is no exception to this practice.

(The above data is part of a kit review which will appear in full next month.)

Binbrook in July 1986, although the model could be used with virtually any RAF (or visiting NATO!) aircraft type since the early '60s period! Price £7.75.

Another most useful kit is GA709, RAF/NATO Tow Bar Set. This kit contains 21 white metal castings, 10 etchings (plus 2 spare) styrene tubing and and decal sheet, as well as instructions. The kit contains enough parts for two complete bars, the instructions giving details on the various lengths used by different aircraft types. A cutting guide is included. At £3.75 a set, these items can be used on any modern RAF diorama, and are the perfect link between Eager Beaver and Harrier!! We are incidentally working on a kit of Massey Ferguson aircraft tractor, and this kit should be available summer 1987.

Other kits nearing completion are the long-delayed A6/EA6 ladder set, ladder for F19, F106, detail set for the forthcoming Hasegawa Mil 24, steps and other details for the Sea King, and a Firestreak/Redtop missile and trolley set, for use with Lightning models. More news as soon as it is available!

As usual, these kits can be obtained directly from us, post and packing 70p, (1 to 6 kits), £1.00 (7 or more items), for UK/Eire, BFPO. Overseas customers write for a Pro Forma Invoice. Alternatively virtually all of the well-known specialist model shops carry our products.

"TAKING OFF"

Here's a very unique service supplied by Graham Cowell of 26, Alford Court, Bonchurch Close, Sutton, Surrey SM2 6AY!

I'm certain that many metal aircraft enthusiasts, especially those interested in the older Dinky releases are a bit sick at the prices charged for mint and boxed items, the only ones available seeming to be the tatty and chipped ones! Well, Graham will undertake to completely restore the liveries, or alternatively supply the livery of the customers choice! This service is of particular interest to those readers who either work for a specific airline and can't get hold of models featuring the correct livery or, those who merely collect aircraft in liveries of world airlines.

The models are painted by hand after the stripping process, and have already become very popular amongst pilots, aircraft collectors, airline employees, airlines themselves, and Graham has for some time now, been supplying them to people all over the world. "I was in the 'loo' immediately prior to attending the Heathrow swapmeet!" Graham told me on the

day... "hardly having time to reach the roll... when my telephone rang! It was one customer from Australia, so news of the service is certainly spreading fast through the grapevine!"

I know that several Gatwick and Heathrow concerns have been satisfied with aircraft Graham has supplied to their executives.

Comets, Garavelles, Britannias..... Guernsey, Monarch, British Eagle...all aircraft and liveries are available, and Graham has so far had 150 commissions since early 1985, including a Swissair Caravelle, Qantas Super Constellation and Guernsey Viscount!

All aircraft used are original Dinky Toys and to 1:200th scale...except for the VC10, TriStar, 747, 707 and DC-10 which are Corgi/Lintoy. The original Dinky models are however becoming more and more difficult to obtain, and considering the prices even the tatty are now fetching, Taking Off's prices are more than reasonable.

Demand for the Viscount is particularly high, the current charge being £29.50 inclu-

sive of p&p if the customer supplies the model, or £39.50 if he does not. Rates for others are as follows: Viking...£22.00 (£29.50). HS125...£22.00 (£27.50). VC-10...£25.00 (£29.50). TriStar...£25.00 (£29.50). Boeing 747...£25.00 (£29.50). DC-10...£25.00 (£29.50). Boeing 707...£25.00 (£29.50). 737...£25.00 (£39.50). Comet...£29.50 (£39.50). York...£29.50 (£39.50). Caravelle...£35.00 (£49.50). Britannia and Super Constellation prices on application.

Ordering is simple...a deposit of £10 is required...this should be forwarded to Graham at address above, with full details of aircraft...number of registration required...livery etc. Recommended.



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THE LITTLE EXTRAS

A review of the accessory scene by Bob Morrison

Verlinden

Francois Verlinden's latest venture is in the field of resin 1:35 scale figures.

There are three **Mechanic** figures available at present - one standing (or lounging), one leaning and one kneeling. They each come with three separate heads to enable British, German or American soldiers to be depicted. However, as the figures are clothed in trousers and shirt, with only a belt as adornment, they could easily be of most European or North American origins, from World War II to present. Although uniform detail on the figure I bought (No2 leaning) consisted only of slash pockets to the trousers and plain collar and cuffs, the figure is full of detail. Belt loops on the trousers are clearly moulded and the boot lace detail has to be seen to be believed. The faces are full of character and the ears are undercut to such a degree that etched brass spectacles could be properly fitted to the figure.

I chose to use my figure as a contemporary British Army Private in flannel combat shirt, trousers lightweight and beret. To form the distinctive patch pockets etc, I used a very thin plasticard which I "melted" to the figure with "plastic weld" liquid cement. However one could use Miliput instead or paint the pockets on.

The model comprised 6 parts - head, upper torso, left and right legs and arms, and was virtually free from mould marks.



due partly to the casting process. To join the parts I used a cyanoacrylate (Superglue) which I found ideal, although an epoxy glue would also work - plastic cement will not!

To fill the minor gaps I used "Plasto" filler. Take care when cutting the parts from the carriers as the resin is more brittle than plastic. Cutting and sanding the resin is no problem at all and paring down is even easier than with plastic.

My only real quibble with this figure is the size. It is meant to be 1:35 scale but does not look out of place alongside 1:32nd figures. This is alright in 1:35th dioramas if all figures are the same, but if you're using more than one manufacturer's figures it could cause problems; if you assume an average height of 5' 10", this guy is going to be 6' 5" tall, and any more than one soldier of this size in a unit is very unlikely.

At £3.50 a time, this figure is much more expensive than plastic, but a little cheaper than most white metal, and has the advantages of ease of modification and interchangeability of parts of the former, with as much if not more detail than the latter.

The next resin figure release from **Verlinden** is to be General Patton in 1:35th scale followed by 90mm.

Some other 1:35th scale Verlinden accessories which have been available for a couple of months are:-

Artillery and Tank Ammo Boxes

Comprises thirteen wooden shell and grenade cases of various sizes cast in resin-£2.25

U.S. Small Arms Ammo Boxes

Comprises sixteen assorted .30 .45 and .50 cal. ammo crates - £2.25.

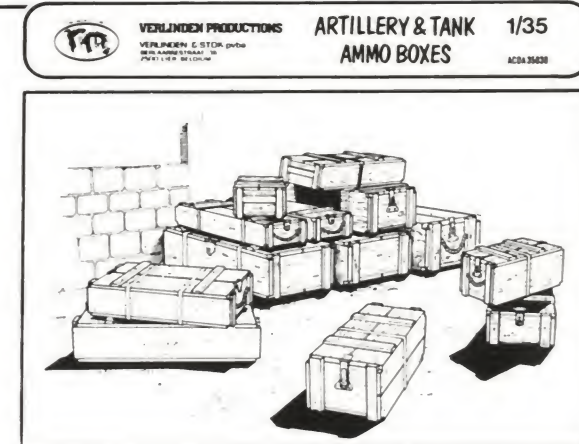
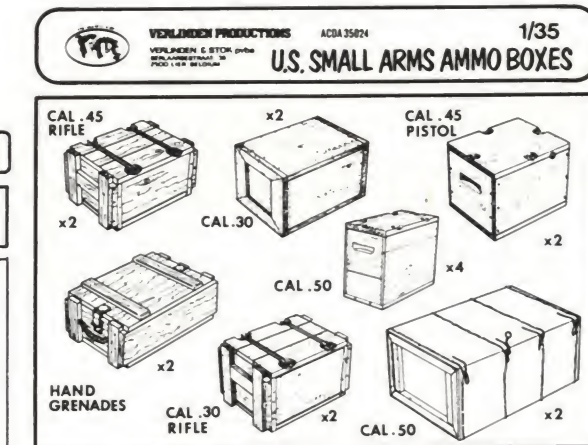
Kit Bags and Rucksacks

Comprises eighteen kit bags, rucksacks, gas mask containers and water bottles of modern U.S. design - £2.25.

WW II German Soldier's Gear

An etched brass sheet containing 27 belts and straps with buckles, a set of 'Y' braces, a pack frame, wristwatch and nearly twenty medals, wound badges, belt buckles etc. There are enough bits and pieces to completely kit out one figure with bits to spare, but of course as no model would carry every bit of kit there are enough bits and pieces for several figures. There is also a similar U.S. soldier set - £2.65.

All the above items are available from specialist model shops or by mail from **Historex Agents**, 3 Castle Street, Dover, CT16 1QJ.



BELGO MODELS

This manufacturer produces an extensive range of good, cheap, white metal, WW II, 1:35th scale figures. They are designed with dioramas in mind and accompany vehicles very well.

Generalleutnant 1939

Major General in parade dress. A crisp 3 part kit comprising main body, separate right fore-arm and gloved hand and separate ceremonial sword. Only real complaint is that the arm join is horizontally at the elbow, leaving a messy joint to be filled and filed.



Generalleutnant...a good example of Belgo's good quality low price.

O.T. Einsatzgruppenleiter 1944

Todt organisation works group leader. An exceptionally neat one piece casting with few mould marks.

Civilian Worker

A middle aged male manual worker in shirt, dungarees and beret. This model has four parts - body, right and left arms and long handled spade.

Fit of all parts is good and mould lines are restrained. I decided to use my model as a Partisan and equipped him with a Multipose KAR98K German rifle which fits perfectly, if



Einsatzgruppenleiter...the 'master' modeller has captured the cold facial expression of this character.

the fingers on the left hand are closed around it. The figure could depict most European or North American nationalities from the turn of the century to the present, although it does have a typically French/Low countries look about it.

All the above figures are available from **Historex Agents** for £1.75 each. They contain full instructions and a 90mm x 65mm colour photo of the finished model which shows the figure about 50% larger than actual size; an excellent painting reference.

Cheshire Volunteer

This manufacturer produces high quality 54mm white metal figures, in sets with a common theme, such as "Americans in Vietnam" or "The Multinational Force". His latest quartet depicts troops involved in the Far East during WW II. The first two are now available, by mail order from **Historex Agents** at £3.75 each + 30p postage.

Australian Infantryman, New Guinea 1941/2

This kit of five parts, finely cast, comprises body, head, right arm with Owen machine carbine, magazine and circular base. The figure is very well sculpted with great attention having been given to detail, such as the



Civilian worker...a typical French/Low Countries character.

hand grenade hung over the belt next to the left kidney pouch, or the slouch-hat cap badge.

The Owen machine carbine, named after its Australian designer Lt. Evelyn Owen, was an extremely effective and reliable jungle weapon. It was an unusual design with a vertical overhead magazine, which proved less likely to get caught in jungle vegetation than a conventional side-loader such as the British Sten.

"Chindit" Burma 1944

The fit of all six parts of this figure are so good that if a "Superglue" is used, no filler other than paint should be required on the joints.

This bearded, open shirted, bandolier clad, jungle fighter carries the rifle No 5 Mk 1 or "Jungle Carbine", which was a modified and cut down version of the British Lee-Enfield Rifle No 4.

Both figures come with painting details and give a reference to one of the Osprey Elite or Men-At-Arms series for further detail.

Aeroclub Models

John Adams has been specialising in white metal aircraft parts for quite a few years now and has a reputation amongst aircraft converters and scratchbuilders that is second

to none, but I wonder how many A.F.V. modellers have used his products.

Aeroclub produce a range of 24 different types of 1:72nd scale aircraft guns, from **WW 1 Vickers** to contemporary **U.S. M60**, many of which can be used or adapted for vehicles. They also have various sets of wheels from 7.5mm dia. to 14.5mm dia. and various rotary engines such as the Wright Whirlwind which was used in some marks of Sherman tank.

Their catalogue is available for 34p plus an S.A.E. to **Aeroclub Models** 5 Silverwood Avenue, Ravenshead, Notts.

Aeroclub also import **Flex-I-File** which I found quickly became an indispensable tool. It consists of a 'U' shaped aluminium frame which takes 5mm wide x 100mm long strips of plastic backed sandpaper. It is an ideal device for sanding over and inside compound curves and irregular shapes due to the flexible nature of the strips.

It costs £3.95 plus 50p postage for the tool and six assorted grit strips. Refill packs of six grits in coarse medium or fine are available for £.099p plus S.A.E.

Forthcoming Attractions

Tim Perry of **P P Aeroparts** had prototypes of his **Eager Beaver** and **R.A.F. Houchin Ground Power Unit** on display at Stoneleigh recently. Both models are to 1:72nd scale to complement aircraft dioramas, and comprise white metal parts, etched brass com-

ponents and decals. The "Tractor, Wheeled, Fork-Lift 4000lb", to give the **Eager Beaver** its full title, is used by all branches of the Armed Forces. As well as extensive airfield and rear echelon use, this versatile vehicle has seen service under the most arduous conditions in the Falklands, where it performed admirably.

The kit retails for an eye-opening £19.50, but when you see the quality and precision of the finished article the price doesn't seem quite so high.

To go with the **Eager Beaver** Tim has commissioned a driver figure which is available separately for £0.55p. The figure complete with pilot style crash helmet could be used with a variety of Nato support equipment or armoured vehicles.

PP Aeroparts are available from specialist aircraft model shops or direct from P P Models (Hambrook), Freepost (BS3874), Patchway, Bristol, BS12 6BR.

K.K. Models of Stafford have produced a resin flame thrower trailer to accompany the **ESCI Churchill** or **Sherman**. It should be available from E.D. Models by January '87. Price is believed to be £2.95.

Ed Deeley's **E.D. Models** is the distributor for **J.B.'s Land-Rover** which has been available now for a couple of years. The model which has 30 injection moulded parts, including four transparent, depicts a series III long wheelbase soft-top version. It has a couple of faults:-

It sits too low on its suspension and the shape of the wheel arches is wrong. However, the problem of the negative relief tailgate and the badly fitting rear body interiors has been corrected on the current batch, leaving quite a presentable kit. Also included in the remarkably low price of £1.30 are registration plate decals for no less than four vehicles. The next release from **J.B.** will be a **Hard Top Land-Rover and Trailer** round about the end of February '87.

These kits are available from good specialist A.F.V. model shops or from the distributors E.D. Models, 64 Stratford Road, Solihull B90 3LP.

Tony James of **Tee Jay Models** is importing a quantity of the **Tamiya Matilda, Universal Carrier** and **T34/42**, which have been unavailable for quite some time in the UK. Details and prices will follow as soon as I hear more.

Lastly, although not strictly in the armour field, **Matchbox** had an example of their 1:72nd scale **Boeing Chinook** on display at Stoneleigh. The model, which will be in the red price range, should be available by July/August '87, I had the pleasure of watching 2 Para and Whiskey Company Royal Netherlands Marines disembarking from Chinooks on Dartmoor at the end of Operation Rolling Deep '85, and have a couple of ideas in mind for dioramas, however space might be a problem!

BOB MORRISON

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TORNADO

- A MODELLER'S MISCELLANY



A review of kits by Tim Laming
(following up last month's report)

Modelling the Tornado leaves one with a vast number of choices, as regards kits and accessories. The fact that the Tornado is such a modern and important warplane has meant that almost every kit and accessory manufacturer has taken more than a passing glance at it. The first kit to appear was a 72nd scale MRCA produced by Airfix. When it was first released it was quite accurate, as a representation of the real thing, however the real MRCA was still in the midst of a development programme, and so the actual shape of the final Tornado was somewhat different to that of the early MRCA. Consequently, whilst the Airfix kit was (and is) quite good, it does only represent the initial prototype aircraft, and for this purpose it is certainly worth building, if you can find one in your local store. More recently Airfix re-released the same kit, but with all the relevant modifications made to the Tornado GR1. This kit now widely available is quite good, with plenty of detail. Sadly some of the major components are rather clumsy and don't fit together too well, and the canopy is worthy of criticism, in that only the actual clear parts of it are moulded separately, the frame being integral with the fuselage - not a very good idea. The decal sheet is very good (including TWCU markings) but the printing quality (ink register) can vary between kits quite considerably. Eschi also produced a very early attempt at the MRCA which can also be found, and again a later up-dated version is now available. In many ways it is similar to the Airfix kit, being quite well detailed, but not quite capturing the true shape of the Tornado. The decal sheet is particularly good, with superb 617 squadron markings included. Italeri was yet another company which had a stab at the MRCA and later re-issued the kit with revised parts for the GR1. Revell re-ran the same kit in their own boxes, and both versions are currently available. Like Eschi, Italeri, and Airfix, the Revell kit too is quite a worthy effort, but like all others, it shows its connections with the earlier MRCA kit, and doesn't in all honesty, look quite like a Tornado when completed. Without doubt the best 72nd scale kit is that from Monogram, which was produced from scratch only recently, thus fully represent-

ing the GR1. The overall shape is spot-on in every respect, and the only poor points are the slightly inaccurate main wheels (a spare set of Airfix wheels would be a bonus!), and lack of authentic side consoles in the cockpit, which is rather odd, when one looks at the superb engraved main panels. The decal sheet isn't much use and is better placed in the dustbin, but this aside, and the rather high price taken into consideration, the Monogram kit comes our winner in every respect. The fact that Japan has shown interest in the Tornado may mean that Fujimi might have a go at the subject eventually, and rumours of a Hasegawa kit have been around for a long time - one can, as they say, only hope.

In 48th scale, there's only one kit in town, this being the Eschi offering which portrays the MRCA. It was one of Eschi's very early efforts, and looks as if it is! It's a rather clumsy, ill-fitting affair, that needs an awful lot of work even to make it into a decent MRCA, let alone a Tornado GR1. The worst part is the canopy, the framing for which is separate to the clear parts, leaving the modeller to cement the frame to the canopy. As one might expect the result is something best forgotten about! During 1987 however, Airfix will be releasing their long-awaited F2/3 kit. It was first seen in mock-up form some years ago, and if the dummy model was anything to go by, this kit should be a best-seller. Apart from the obvious modelling possibilities, it wouldn't be too difficult (albeit a little expensive) to mate some of the Eschi MRCA parts to the Airfix F2/3 kit, to make a very effective GR1 model. If you already have the Eschi kit in store somewhere, this is probably your best option, if you want a really good model of the strike version.

In 32nd scale, Revell have released two kits, one of the GR1, the other of the F2, and both are quite outstanding. The overall shape is captured very well, and there's a goodly amount of detail, not least a very comprehensive range of underwing stores. The cockpit instruments are all faithfully moulded in plastic and the nose cone can be fixed in the open position to reveal the internal radar dish. The decal sheet in each kit is superb, with a very wide variety of

RAF, Luftwaffe, German Navy, and Italian options, together with a full set of stencil markings, walkway lines, etc. The F2 kit of course, has only RAF markings. It should be noted however that the GR1 kit is available in two versions, one with a German Navy machine on the box top, the other with a Luftwaffe aircraft. The contents (particularly the decals) do differ, so check which one you prefer before buying. Like the Monogram kit, it is only let down by the rather poor wheels, which do need detailing. Certainly in this big scale, there's plenty of scope for masses of additional detail, not least extended flaps and slats on the wing, which would be quite a task for any modeller. However, in view of the surprisingly low price of the big Revell kit, their offering is wholeheartedly recommended.

Apart from actual kits of the aircraft, accessory packs are also available from 'C Scale' which include resin and metal parts that supply further detail for 72nd scale kits. The range is constantly expanding, but already there are sets that provide parts to make an F2 from the GR1, and others that supply ECM pods, bombs, refuelling probes, munitions pods, missiles, and so on. The full list of 'C Scale' kits can be obtained from ED Models, at 64 Stratford Road, Shirley, Solihull, West Midlands, B90 3LP. Aeroclub produce superb cast white metal ejection seats in both 72nd and 48th scale for the Tornado, which provide much more authentic seats than any of the kits, and free nose-weight at the same time! These can be purchased from many model shops, or directly from Aeroclub at 5 Silverwood Avenue, Ravenshead, Nottingham, NG15 9BU.

Peddinghouse produce cast metal ejection seats in 32nd scale, access ladders and pilot figures (also 1/48th) which can be purchased through Historex Agents at 3 Castle Street, Dover, Kent. CT16 1QJ. In 72nd scale, PP Aeroparts produce a very good etched brass access ladder, ejection seat handles, canopy mirrors, chocks for the wheels, fire extinguishers, ground power units, and much more, the latest catalogue of parts being available directly from 8 York Close, Stoke Gifford, Bristol, BS12 6NU.

Decal sheets are widely available for the

Tornado, the largest variety coming from Modeldecal, who provide markings for literally every RAF squadron in 72nd scale. Sheet 67 contains markings for 9 Sqn and TWCU, 73 has 27 Sqn and TOEU (Tornado Operational Evaluation Unit - Boscombe Down) markings, sheet 75 has 15 and 16 Sqn markings, sheet 77 has 20 and 31 Sqn markings, and sheet 80 has 14 and 17 Sqn markings. For the F2, sheet 76 offers 229 OCU markings. As with any Modeldecal sheet, full stencilling and placement details are included together with a selection of refer-

ence drawings and photographs. Current availability and prices can be obtained from Modeltoys at 246 Kingston Road, Portsmouth, PO2 7LR.

Markings for German aircraft are less common, the only specific item being Modeldecal sheet 64 which includes the TTTE emblem. Other unit insignia could be found from older Starfighter decal sheets, although locating suitable serial numbers will still be a problem (kit sheets are the only real source). Italian machines are much better catered for, courtesy of Tauro Model,

who produce decal sheets in 72nd, 48th, and 32nd scale, for unit badges, national insignia, and old/new style buzz numbers. These sheets can be obtained from many model suppliers, including Hannants at 56 London Road North, Lowestoft, NR32 1EP. Finally mention must be made of a very worthy 1/44th scale Tornado produced by LS. There's not much detail, but it's a neat little kit, and if you collect airliners, it might make an interesting comparison.

Dear Sir,

This is your opportunity to voice your opinion...please make use of it and write to the Editor today! (We will endeavour to answer all letters sent, even if they do not appear in the magazine).

First request out of this bag this month is from our 'American cousins'...Don Veta of 1010, North Palm Avenue...309, Los Angeles, California 90069. Don is after old toy cars and trucks...in any age, size, material, type or condition, but he is especially after a 1:25 scale Politoys Alfa Montreal...so anyone out there who has such a beast...(it was a superb model...I have one but won't part with it!) please contact Don who will pay a fair price for it.

Peter Pettiait writes from J.P. Products, 6, Newport Road, Milton Keynes to say that it's good to see Airfix on the stands again. His company are in the business of manufactur-



ing a range of 1:1/2 scale vehicles, such as the Range Rover and caravan pictured alongside...the latest being an AFV! I wonder what Airfix reader Peter Bourne...(see this month's Junior Corner) would think of this one?. This is the first off the assembly belt, and relevant marking will be featured...just the vehicle for Friday night at Tesco's!



The AFV is pictured in its unmarked state...interesting to see that it also will seat an adult!

Major Thomas Ellis, U.S.A.A.F. Rtd is a regular Airfix reader, and having seen action in W.W.II, then Korea...his career ending after 'Nam', when, a glutton for punishment he took over organisation of the local school bus service in his home town after retirement from the services...he now operates his own private aircraft as well as searching out model ones. In his travels he found a range of diecast 'bubble-packed' models...actually purchasing one for me to have a look at...a Spitfire; the landing gear looks a trifle unusual in this one, but the casting of the main fuselage is good, and well worthy of modelling from. 'Chopping' or



'Scratchbuilding' are two other facets of the hobby that can be very gratifying and in this case it should not be too difficult to enhance the original model...I'll have a go one evening this Winter! Thanks Major Tom for the 'pressie'!

Any other readers who are ex-service (British)...drop Tom a line or two...he'd be pleased to hear from other Airfix readers!

Plastic Warrior.

In the comic or pop world, they are known as 'zines'...(ie Fanzines etc), they are home produced newsletters produced for enthusiasts by enthusiasts...and I have just received a couple, courtesy of the Plastic Warrior team, who also telephoned me the other night, to say that they were over the moon to see that Airfix Magazine was back on the newstands...and as Airfix also produced figures, would we be featuring news? Well...simple answer is "Why not?" Model figures reader Ross, are also models, and to my mind, very much part of the world of collecting and modelling in plastic or metal...models never look right to me unless they are accompanied in a dioramic or semi-dioramic setting by operating figures...eg a car looks good in a full or half relief diorama if there is someone with it...same goes for model railways, plastic kit-featuring dioramas etc. We shall certainly feature news as received...manufacturers please note! The Warrior is very interesting, containing all sorts of articles on subjects such as regimental conversions, Modellers' 'glue-up' board, Britains swoppets, Lone Star, Elastolin etc. Perhaps some of our readers interested in this field could be persuaded to let us have a page or two now and again?

A BRIEF ENCOUNTER

By I.M. Jones

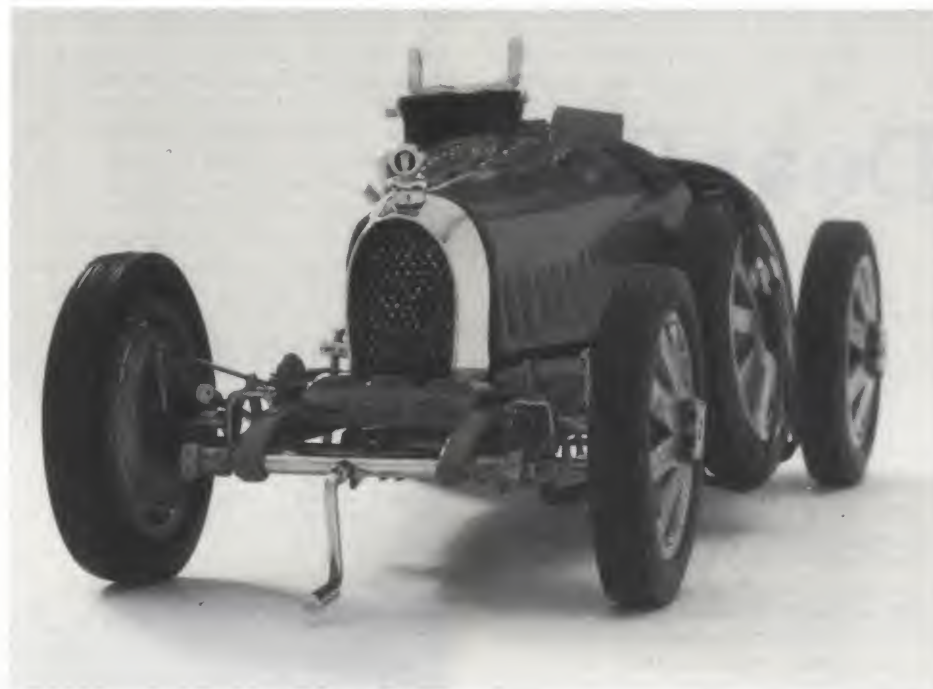
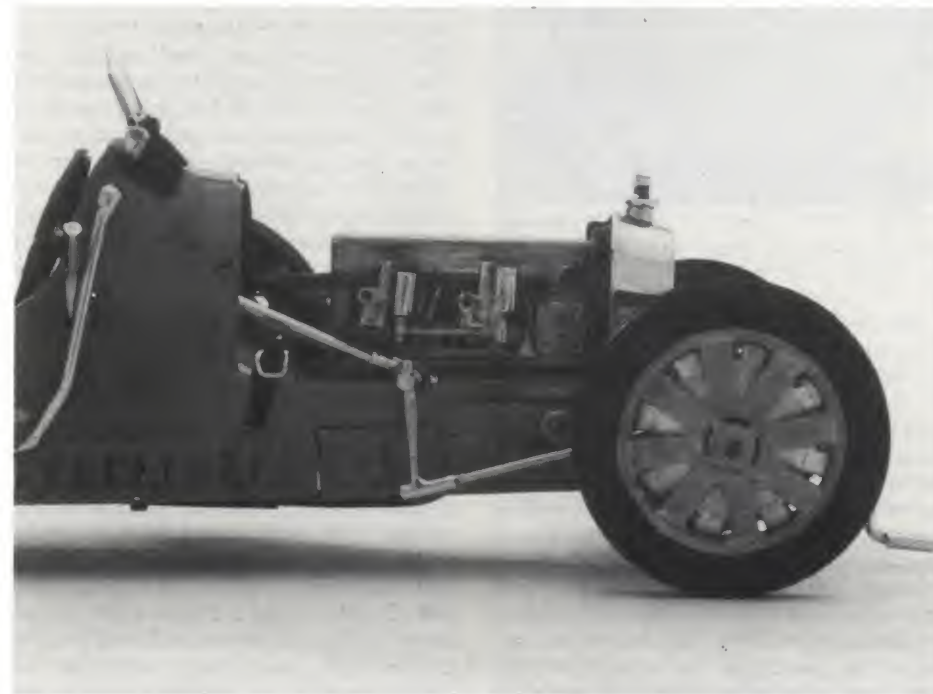
*"I have known Ian Jones of Derby personally for some years now; we originally 'met by telephone' when he contacted me at the time I was diecast editor for Auto Modeller to tell me a superb anecdote concerning his dog and a plastic kit! (The dog had eaten a rather expensive component for one of Ian's kits...Ian had written to the U.S. manufacturer for a replacement part...the dog had eaten the letter before it was posted...he wrote again...the part arrived, and the dog promptly ate it as it lay on the front door mat having just been delivered! It says a lot for the U.S. company when I tell you that they sent a second replacement...but the story shows Ian's perseverance and stamina in the face of overwhelming odds!) When he told me that he was scratch-building a Bugatti Type 35 I somewhat felt that, though he had no previous experience...this was one guy who was going to **succeed!** My appetite was much whetted when I heard that he had completed the project...and now having seen the car...well judge for yourselves! I think reader Jones of Derby has proven that when it comes to modelling, nothing is impossible...the article that has been put together by him somehow sums up what I was saying in last month's issue!" - Ed.*

I recall the time when I was privileged enough to meet Gerald Wingrove at the 1980 Model Engineers Exhibition at the Wembley Conference Centre. I asked him to autograph my newly acquired copy of 'The Complete Car Modeller' written by himself and he questioned me about my model-making ambitions. I answered that I would never be clever enough to be able to scratchbuild, to which he posed the inevitable question "then why have you bought the book?"

Six and a half years later these photographs are proof of what can be done with a little patience, determination, two hundred hours of spare time, and about ten quid!

The initial choice of subject is the most difficult decision to make. In my case this was determined by available resources (or lack of them); I have no craft training (I sit at a desk all day), and the availability of plans and other authenticating information such as

Left: The classic Bugatti 35 radiator shell - showing imaginative use of scratch-box mesh!



Right: With the bonnet removed the prolific amount of detailing in the engine can be seen. Well worth the work required!

photographs and drawings of the real thing. To overcome my own lack of skills I decided to work in lead-coated tin, a material for which advice was easy to obtain as my employers use it for their own products. The best method of joining this metal is by soldering, a process that takes patience but little skill to master, and in no time at all, one can become reasonably proficient.

The choice of scale is purely personal, but my feelings are that 1/43 is too small to work in whereas 1/24 (my chosen scale) allows a reasonable amount of detail to be shown without crowding. An added bonus was the availability of ready cast wheels to 1/24 scale, of the correct pattern, (my only concession to limited manufacturing resources). On January 7th 1986, the Type 35 Bugatti was chosen as my first attempt at scratchbuilding.

My first task was to decide how best to construct the model and what would be needed. The choice of material had already been made and a plentiful supply was available from the scrap bin at work. I next thought about what tools would be needed. I did not possess a lathe and could not justify the cost of one until I was sure I could scratchbuild, although now I find one quite useful, therefore, only basic handtools (hammer, jewellers snips, files etc) were used with the exception of a 'mini drill' with its various 'bits'.

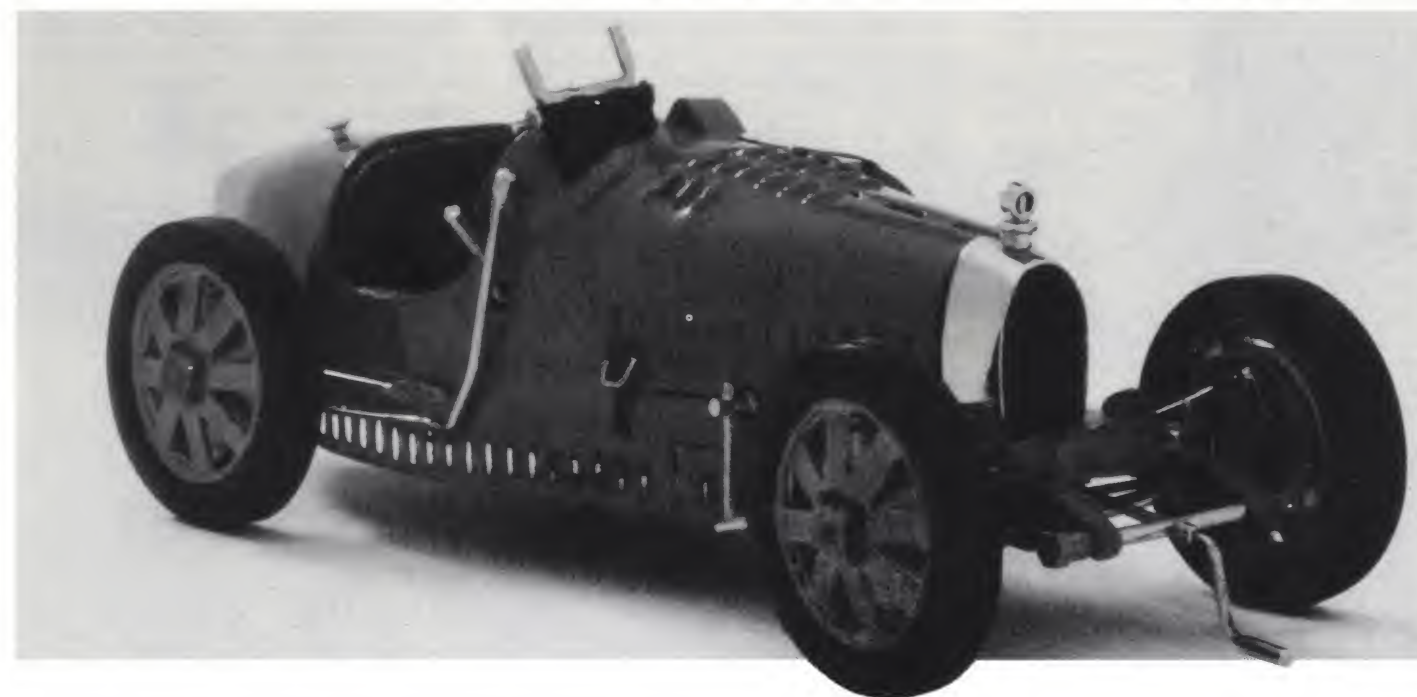
Construction commenced after sufficient photo-copies of the plans had been obtained, as I had decided the best way to cut the various body pieces to the correct shape was to sellotape the drawing to the tin then cut round the required piece with the snips. The tail section was to be the 'guinea pig'. If I could make that to the correct shape, I could do anything! It took many attempts to get it right and in the end I had to resort to using five separate pieces, soldered together, then filed and emery papered to the correct form. However, I was satisfied with the result, so I pressed on. The body sides and the scuttle were made in one piece so a different technique was needed. This involved drawing out the panel as it would be if it were flat, and forming it round to the required shape. (This is called pattern development). However it was not as easy as it sounds, and the trial and error method was again used. Next, the chassis. This was relatively easy, the shape being cut from the paper plan, and the box section created by soldering a thin strip of tin along the edge. Holes were drilled in the

The end result!! - Ian Jones' superb Bugatti Type 35.

chassis members to accommodate the suspension mounting points, cross members etc. The rear axle came next along with the rear springs. These were attached to the chassis, together with the floor plan which already had the gearbox in place. This gave a fair amount of rigidity to the assembly. It was time to offer the body up to the chassis so that a method of joining the two together could be ascertained, as the body would have to be sprayed separately to the chassis. Further small details were made from wire, brass rod etc, the seat being made from two pieces of soft wood, scored with the hot soldering iron to give the cushion effect and then sprayed semi-matt black. Next the engine. I had always decided upon a hinging or removable bonnet, engine detail would therefore have to be incorporated. The basic shape was again made from tin and soldered together with details such as carburetors, exhaust manifold etc from 'bits'. The engine was installed in the chassis to ensure it would fit, and would be epoxy glued on final assembly. After the engine, the front axle and springs. It took a couple of attempts to get the axle bent correctly. Next came the biggest stumbling block. How to give the louvred effect on the bonnet and lower body panels. My first idea was to drill two parallel rows of small diameter holes along the length of the panel, then thread a wire through from top to bottom and solder it on the back to hold them in place. This was however not very successful. I ended up making a die and punch from hardened steel. This consisting of a 'male' and 'female' part which when brought together under pressure with the tin between, left the desired indentation. It was not as easy as it sounds, but the effect can be seen from the photographs.

Flushed with success, I decided to tackle the all important Bugatti radiator shell. Again this had to be pattern developed, but after a little coaxing, the radiator was made, the grill being some mesh from the 'scrap' box! The wheel nuts were cut and filed from small diameter round bar and tapped 10 B.A. Pattern development was again needed for the bonnet. Unfortunately, when the louvres were punched in the panels it caused the metal to stretch so that when they were formed to the correct shape, they didn't fit! Trial and error was the only way. Four attempts later I succeeded in getting a satisfactory result. It was at this point that my scratchbuilding career nearly ended! I continued, steering box and linkage, starting handle, windscreen, spare wheel carrier until finally everything was ready for a dry run. This was done, and after a few minor alterations and it all fitted, it was taken apart for spraying and chrome plating were required. (I did consider building my own plating tank but decided against it and had it done by a local firm for four quid!) Everything was complete and all that was left was the final assembly which really only took one night.

In terms of cost. £3.00 for wheels.. £4.00 for plating (it should have been five but I sent my wife to collect the parts!), £2.00 for primer and finish colour, it is a cheap pastime. In terms of time, approximately 200 hours, one will only get out of it what effort one is prepared to put into it. In terms of personal satisfaction, it is unbeatable. The sheer pride of showing someone your completed model and telling them you have built it from virtually nothing far out-weighs the late nights and the problems encountered. I would recommend everybody to give it a go. Nothing is impossible.



EXPO '86...

"THE GREATEST SHOW ON EARTH" ...!

A Model Transport Special with 'Our Man' at Expo - Iain Hines.

"WORLD IN MOTION-WORLD IN TOUCH" was the official Expo '86 theme, but to the modelling/model collecting person, it was simply the greatest show on Earth, with 54 Countries, 7 Provinces, 2 Territories, 3 U.S. States and a host of multi-nationals and other interests scattered over an area the size of London's Dockland, in downtown Vancouver, British Columbia. All invited parties had been asked to set up their pavilions with the Expo theme very much in mind, and with very few exceptions, this was followed faithfully in a highly imaginative manner! Considering the theme, it was natural that the world of transport as well as it's scaled down 'model' associated world would play a prominent part; what could not be displayed in full-size version because of transportation and space problems was displayed in model form, in most cases the organisations concerned featuring both!

The whole site was split into colour zones, each zone's external 'general theme' display and decoration being devoted to various modes of transport - ie the Green Zone featured a Marine Plaza which included crafts being built, Air Plaza which featured suspended as well as ground displayed aircraft, including WWI aircraft being restored and the Land Plaza, better known and remembered as the "International Traffic Jam", with all manner of vehicles scattered around the area. This plaza incidentally also included "Highway '86" comprising of a vast array of vehicles which had been moulded into one huge sculpture, seemingly sprayed with a soft spongelike material to protect the individual vehicles. But I digress...let us start at the beginning!

Up to June, I hadn't heard much about what was later learned to be the only transport and model transport exhibition of the century; the U.K. press typically had chosen to almost ignore it completely, being more interested in the pursuit of the latest 'Dirty Den', Boy George or Sam Fox story...they have to get their priorities right after all!

I just happened to glance through a copy of Readers Digest, and my interest was very much taken by the article on Expo '86, especially as it was thematically connected to the world of transport...it was no use...I just had to go! After the "Hines in America" four parter of last year which had drawn a very hefty mail bag indeed, it was felt that a visit to Expo would be the ideal follow-up, and I owed it to readers to endeavour to get out there, especially (I gleaned from contacts) as no other publication had been imaginative enough to cover the 6 month event! After about three weeks of frantic communi-



EXPO'S water-borne bully - Nessie. Our man's close encounter of the worst kind!

cation with Canada House, Expo's Press office and Air Canada, made necessary owing to the fact that the rest of the world's press had *not* ignored this important event.. (no accommodation or tickets for love nor money), the trip was on!

I at last, through the efforts of Air Canada's excellent West End branch staff managed to get tickets as well as accommodation..again arranged by Air Canada, and we were off, the bonus being that I was to stay with Ken and Heidi Sohm in Richmond, B.C... only half an hour's drive away from the Expo site. Ken incidentally is an ex-patriate baker from Oldham in Lancashire!

The trip was on!

Polar route with Air Canada.

Flight 855 Heathrow to Vancouver, dateline 1st of August...Western flight 408 to San Francisco on the 12th, and return to Heathrow on the 19th on a British Airways Jumbo was the itinerary; reason for detour being unavailability of flights back to London.. bonus being that it gave me the chance to visit the only master modeller I have known personally, Paul Houk of Palo Alto, California, Paul having invited Chris and I to stay with him and his wife for the week!

A further bonus was, that one of the leading Canadian diecast collectors, Ron Peters, a Brooklin Models specialist had said that he

would meet us, then hold a special modelers party for me on the Saturday!

The flight in the Tristar as one would suspect was superb, the view of Iceland's tundra from the air is something to be experienced.. Ron was at the airport, and after a quick wash and brush-up, all thoughts of jetlag forgotten in the excitement he drove us down to the local harbour for.. fish and chips, Canadian style!

Collector/modellers party

Sunshine, cool beer, hot dogs, corn cob and salad..and good company comprising of enthusiastic car modellers and collectors..what more could one ask for? That was the scene next morning at Ron's modellers hoe-down. The man himself is really one of the most amazing collectors I have ever met. Land in the United States and Canada is plentiful, so the average house has plenty of room for leisure-time activities; I was therefore very impressed with Ron's modelling den, with it's cabinets full of Dinky, Corgi, Brooklin, Mini Marque, Eligor, Winross trucks..you name it he has it..and even more impressed with the other three rooms he showed me..he in fact had 4 dens! I met a lot of interesting collectors, and one collector/modeller, who purchases commercially produced diecasts, then sets to work on them stripping, hyper-detailing then paint-

ing in authentic colours...he scratch-builds and 'chops' too. One collector from Vancouver Island, 'Mikey' Simmons had a very rare Dinky Toy aircraft, a Vulcan as well as a Meccano constructor car in pristine condition to show me, and to say the day out was fantastic, would be an understatement..thanks to Ron, wife Theresa and the Vancouver 'gang'. Next day it was down to the serious business of getting my Airfix/Expo press pass..then down to the site!

Expo '86

Britain on the Move!

The press office girls could not have been more helpful, and having supplied me with a pass to cover the full period of my stay I decided to venture forth into the extraordinary world of Expo '86, my first intended port of call being the U.K. pavilion. On the way down I had a rather frightening encounter of the 'first' kind with the site's water-borne bully, a 'Nessie' type monster who delighted in approaching visitors walking by the water's edge, talking to them, then, unexpectedly dowsing them in water from his mouth! "Yah boo sucks..didn't catch me!"

The U.K. pavilion was situated at a very nice dockside location, and the 'theme within a theme' so to speak was..Britain on the Move!..Amen to that! The British concept was highly imaginative, the pavilion being split into 5 sections; local transport, national transport, international transport, fun transport and frontier transport, in that order from the entrance, particular emphasis being paid to Britain's engineering genius past, present and future. The HST, MAG-LEV..the first public transport system to use magnetic levitation instead of wheels, the railbus, Rolls Royce..Jaguar, Lotus etc, the Hesketh Vampire, the BAe146 feederjet, Jetstream 31 transport aircraft..all were represented! On the more lighthearted side of

transport, the sport and leisure section included hang-gliders, ocean-going yachts, powered-go-karts as well as the 'plane you can keep in the garage'..the ARV Super 2 which features detachable wings.

Finally, British inventiveness at it's very best was represented by HOTOL, the world's most revolutionary unmanned, recoverable satellite launcher with it's unique horizontal take-off and landing system. It is thought that an adaptation of this craft may be carrying passengers from London to Vancouver in approximately half an hour by the 21st century! A very interesting exhibition with exhibits in 'real' as well as model form.

General Motors...The Spirit Lodge.

Without a doubt, one of the 'star' pavilions at Expo, that of General Motors, the pavilion split into two sections, the Spirit Lodge and a general 'shape of things to come' display of 1:1 as well as model cars. What can one say about the Spirit Lodge? A superb holographic moving presentation in which the presenters have used technology to create magic! A very old Indian enters the set and stands by a camp fire, telling the audience his most innermost thoughts on transport as it was, and is, and the philosophy behind man's need to travel. In his day it was necessary for his race to move when available stocks of game became depleted..one had to walk or die..later on the horse made things easier but now, whilst transport is still very much used for the distribution of food and other necessities, man can also, such is the sophistication of transport..travel for leisure. In the past he had to move.. on foot which created further hardships, but now through the miracle of technology, he has a magic carpet to use as he wishes. A tremendous presentation reflected by the long queues outside.

The other section of the GM pavilion contained just about every car and van available now, as well as a host of vehicles in real as well as model form projected for the future. One car that figures highly in the giant motor manufacturer's plans is the 1995 Buick Questor. Some people I have talked to since returning from Expo have asked how a manufacturer knows what is going to be produced in 9 years time, but such is the nature of motor manufacturing..one must plan so far ahead to cover tooling design and, development and marketing. Of course from a car's concept to the point of last phase design there are bound to be changes of one kind or another..if for instance there is a development which would improve the proposed model, then of course it would be incorporated, but all in all, the Questor is in this early stage of planning, pretty near what she will emerge as! It is in fact interesting to note that some of Questor's features are contained within the design of one or two models on the road today! Now for a close look!

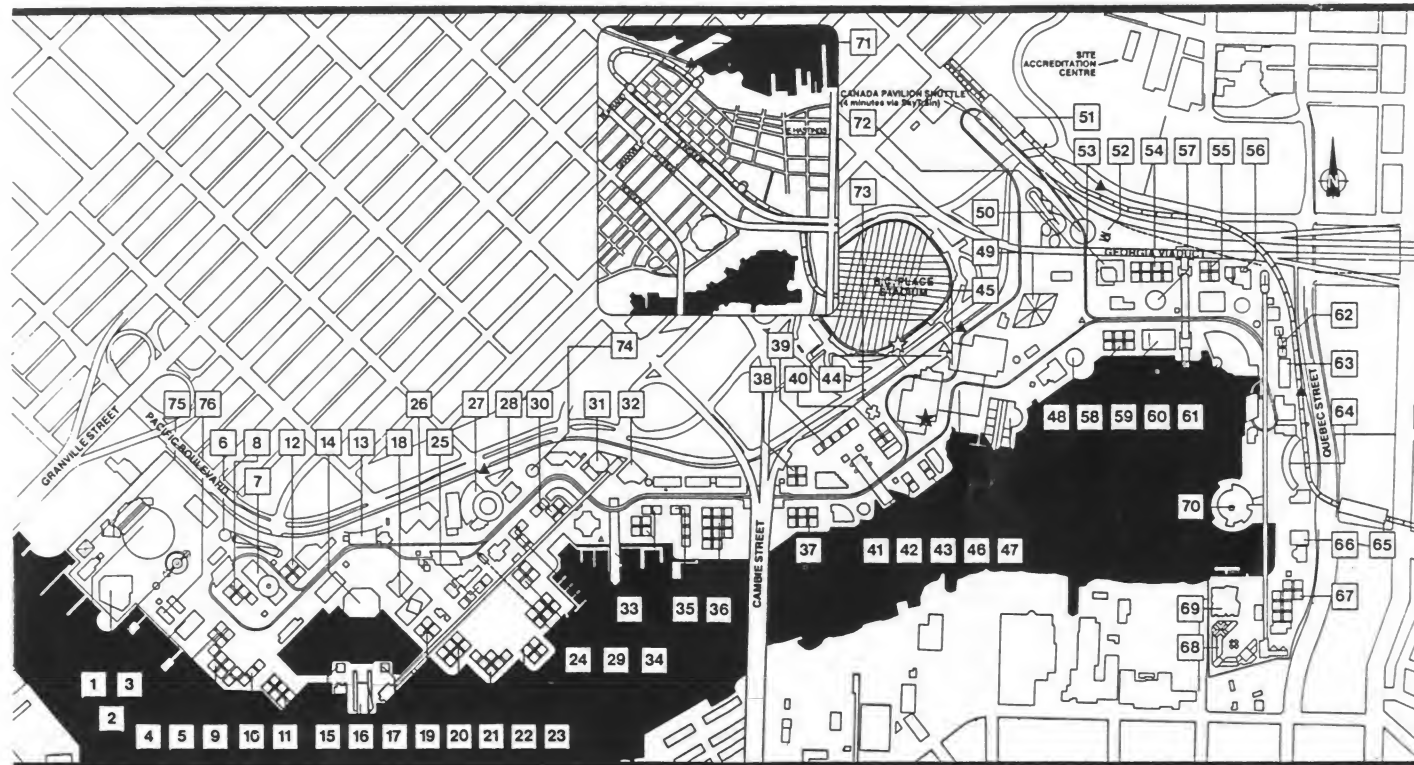
Buick Questor

Here's a car that's bound to be produced in kit form at some time or another albeit in



View of part of the site with EXPO CENTRE on right.

EXPO SITE PLAN



EXPO The 1986 World Exposition
Vancouver
 British Columbia, Canada
 May 2 - October 13, 1986

- ★ International Media Centre (April 25 - May 5 only)
- ★ International Media Centre
- △ Guest Relations Booth
- ▲ Employee/Security Gate

- | | | | | | |
|---------------------------------|-----------------------------------|--|--|----------------------------------|--------------------------------|
| 1. Kodak Pacific Bowl | 17. Cuba | 30. Hong Kong/Hungary/Nova Scotia/Prince Edward Island | 41. Air Plaza | 53. Saskatchewan | 66. Yukon |
| 2. Great Hall of Ramses II | 18. Quebec | 31. Air Canada | 42. Organ of Eastern Caribbean States | 54. Japan | 67. People's Republic of China |
| 3. Space Tower | 19. United Nations | 32. Alberta | 43. Mexico | 55. Yugoslavia/Romania | 68. Forklift |
| 4. Munich Festhaus | 20. Italy | 33. Marine Plaza | 44. Stadium Gate | 56. Pavilion of Promise | 69. Northwest Territories |
| 5. California | 21. Britain | 34. Indonesia/Singapore | 45. First Aid & Security | 57. Land Plaza | 70. Expo Centre |
| 6. Cariboo Log Chute | 22. European Community | 35. Philippines/Thailand | 46. Plaza of Nations | 58. Australia | 71. Canada Gate |
| 7. Telecom Canada | 23. France | 36. Brunei Darussalam | 47. British Columbia | 59. Canadian National | 72. Canada Pavilion |
| 8. Republic of Korea | 24. Federal Republic of Germany | 37. Union of Soviet Socialist Republics | 48. 1907 Philadelphia Toboggan Co. Carrousel | 60. HIGHWAY 86 | 73. IMAX Theatre |
| 9. Oregon | 25. Spain/Belgium | 38. Switzerland | 49. Expo Theatre | 61. Ontario | 74. Expo Centre |
| 10. Washington | 26. Canadian Pacific Ltd. | 39. Czechoslovakia | 50. Scream Machine | 62. Kenya/Pakistan/Senegal | 75. Specialized Periods Tent |
| 11. United States of America | 27. Roundhouse/Holography Gallery | 40. Peru/Sri Lanka/Great Norwegian Explorers | 51. SkyTrain Stadium Station | 63. First Aid & Security | 76. Malaysia |
| 12. BCTV | 28. First Aid & Security | | 52. Looping Starship | 64. East Gate | |
| 13. West Gate | 29. Barbados/Norway/Costa Rica | | | 65. SkyTrain Main Street Station | |
| 14. Xerox International Theatre | | | | | |
| 15. Côte d'Ivoire | | | | | |
| 16. General Motors | | | | | |

about 8 years time (!) as it really is something special so, let's make it a 'scoop' for the new look AIRFIX MAGAZINE and give readers an idea or two on what they'll be modelling or, if they're lucky, driving in the year 1995!

The car is described by the manufacturers as "Buick excellence embodied in a marvel of futuristic automotive technology" and that just about sizes it up. Externally, the car is styled in state-of-the-art aerodynamics shapewise, with a smooth, wind-cheating line which incidentally has no mirrors or even door handles! There are 19 exterior light sources, the front headlights being directional, pivoting as Questor turns; an up-dated Preston Tucker 'Cyclops' system? The windshield is of a light-sensitive material. The car is completely thief proof; the personalised laser key is aimed at a side panel causing the door to open to 'ajar' position, then Questor 'raises', seat retracts and steering hub moves likewise for driver to be seated. Doors pull

shut and lock automatically.

The controls are more akin to an F.16 than a car, but simple to operate; at the centre of the steering hub there is a sensitizer which, picking up the beam from your personal laser will activate accessories, start engine or shut down Questor; it also gives fingertip control of exterior lights, cruise control, transmission and Sceptre, AT&T's on board computer! An AT&T cellular telephone is also present.

There is an eye-level TV monitor for rear solid state camera, this also displaying Sceptre data.

Graphic Control Centre.

This features six convenience facilities namely: Radio, Digital Disc, Climate Control, Map, Navigation and Summary, each controlled by finger tip.

Main panel contains automatic window controls, door controls, digital disc player and a printer which prints out all statistics such as mileage, time, fuel consumption etc.

Navigation Centre.

The high-tech screen displays maps contained in the map cassette, also displaying navigational programmes from same, enabling the driver to be easily directed to his/her destination.

Other proposed features are a traction monitor that actually 'feels' the road, recommending a safe driving speed for the existing road conditions; transparent, two-way mirror providing the driver with visual access to the car's concealed instrumentation...digital speedometer, trip odometer, fuel, engine temperature, voltage and oil pressure indicators; stop lights which flash when used, rate of flash depending on pressure on the brake pedal and a rear spoiler that automatically adjusts during operation for aerodynamic ultimate efficiency as the car assumes nose-down, rear-up posture with speed.

To sum up, Questor is a design that not only comes within the realms of possibility,



Up, up and away - EXPO's novel definition of the term 'Airship'!

or probability...just take a look at the Buick Wildcat and it's specification and you'll see that it is highly likely that if anything...Questor could be out before 1995! A superb concept car, and I wonder which reader will be the first to scratchbuild one?

The Abbotsford Connection.

Expo during its long run featured various specialised periods, during which a particular form of transport would be featured during that period...eg locomotive, aero etc. I was lucky enough to be there during the aviation week from the 4th to the 10th of August during which time there was a daily flypast over the Expo site by aircraft appearing at the Abbotsford International Aerospaced Exhibition which coincided with Expo. On one particular day a distant

sound was heard which soon crescendoed into an almighty roar, causing thousands to scan the sky, fingers in ears! The site was almost blackened as a giant black aircraft flew over, almost causing a total eclipse of the sun such was its size and form...it was of course the almost mythical Lockheed SR-71, the only other aircraft in the daily flypast which caused as much interest being a British Airways Concorde!

Two highlights of the Abbotsford/Expo 'connection' were a "DC-3 Armada" flypast in June, and a joint Abbotsford/Expo flypast "Flight into History" on August 4th and 7th...I caught this on the 7th and to say, that with a host of aircraft ranging from a Ford Trimotor and Lockheed 10A to modern jets, illustrating 60 years of aviation history this was one

of the most fantastic sights I have ever witnessed in my life would be an understatement! Emphasis was on transporters.

To say that the Abbotsford Show was popular would also be an understatement...the traffic on all roads approaching the venue was choc-a-bloc every day...on the Saturday many thousands of enthusiasts being disappointed when turned back home by the long-suffering traffic Police!

There were Aerospace exhibits by major international firms such as Boeing, Lockheed, McDonnell Douglas and Airbus Industries...one of the world's largest aircraft, the Antonov AN-124 Condor, the hit of the 1985 Paris International also being there. This features a maximum takeoff weight of 405,000 kilograms... (892,000lbs), a wing span of 73 metres... (240 ft) and fuselage length of 70 metres... (228 ft).

The flying programme featured some of the world's largest and fastest aircraft, leading STOL designs as well as precision air demonstrations from five teams.

Quite Short-haul Research Aircraft (QSRA); was represented by the National Aeronautics and Space Administration/Ames Research Centre example of the upper surface blowing propulsive lift concept, and whilst talking of unique types of aircraft, this one-off development of the de Havilland of Canada DHC-5 Buffalo features a Boeing designed wing and four high bypass Avco Lycoming ALF-502 turbofan engines. During performance trials the QSRA consistently accomplished landings and takeoffs within distances of 213 metres and 243 metres respectively!

Further example of STOL technology was demonstrated by the de Havilland of Canada Dash-7. With aircraft as diverse as the Fokker F-27 'water bomber', CL-215 by Canadair, Optica by Payne Aviation, Rotor-Way helicopter, the King's Engineering Fellowship twin-engine Angel...designed specifically to support missionary work, the C-5 Galaxy and C-141 Starlifter, DC-6, Shorts 360, Lockheed Electra, DC-3, Ford and Stinson Tri-motors and countless military aircraft including the Lockheed SR-71 and British Aerospace Harrier, as well as a 40th anniversary display by the Blue Angels...there was certainly something for every aviation enthusiast!

That's all for this month...watch out for Part 2 of "Our Man at Expo" in next month's Airfix Magazine...including the U.S.S.R. pavilion, this containing more models per square foot than any other...plus Korea...including a model of the next Olympics' stadium in Seoul...Germany's wonder train the Transrapid 07...Flying at Zero Altitude...plus Japan's HSST...the largest model railway in the world with 4 technicians present every minute of every day to make sure things were working smoothly...plus lots, lots more. Remember...Airfix is the only mag that gave you EXPO!

"HEATHROW'S 2nd INTERNATIONAL SWAPMEET TOY AND MODEL FAIR"...

The 2nd Heathrow International Swapmeet, Toy and Model Fair was an astounding success considering that this is after all only a new event, the first having been held on July 20th. The venue stallwise was a sell-out and the public played their part, the Browells Lane community school being packed for most of the day!



Busy Heathrow

Airfix Magazine's Dave Rosoman was there, most of his time being spent talking to Airfix readers past and present, the general opinion being that it was good to see the U.K.'s oldest hobby publication on the newstands again. Dave had rushed out the December issue especially for the Heathrow event.

Airfix's new Editor Iain Hines was also there; not surprising when one considers that he was co-organiser! The event was originally his brain child. "This area is strongly associated with transport" he told us; "Lagonda cars, Bentley, Feltham Trams, British Airways operating out of Hanworth Airpark before Heathrow, Heathrow itself, Saudi Williams, Allard, Southern Railways... the list is seemingly endless. It was therefore strange that no one had, with this strong association ever thought of holding a swapmeet here, after all the world of model transport is very reflective of the real world of transport." Iain's hunch paid off, for the event was successful from the start. We asked him to put our Heathrow report together, as he obviously knew his way around!

Pathfinder Models.

This new white-metal ready-built concern had just received delivery of their new Jensen 541R which they had commissioned... this one is bound for stardom...very clean castings, highly detailed...a superb model in 1:43 scale. The P4 Rover castings unassembled were on view...can't wait for this one as the real car is one of my all time favourites.

Collectakits.

This retailer specialises in collectors' kits... many rarities on view on the very large stall that took up the complete width of the back of the stage. Many kit assemblers as



"Pathfinder Models" excellent Jensen and P4 castings.

well as collectors were drooling over some of the items for sale; I know some do not see the point of collecting kits unmade in their boxes, but it is nevertheless a growing trend in the hobby, so the collecting habits of others must be respected.

Fran Marmol.

Fran is a local toy collector who, with his son Nick and wife Dawn spends most of his time away from work rummaging around the boot sales always has a tale to tell. He works



Kits old and new on the Collectakit stall.

for a major airline so luckily manages to get over to the States and Canada quite a lot, when he picks up some fine stuff from the North American continent. He had recently been over and purchased a large ESSO tanker, circa fifties...manufactured by Fleischmann of model railway fame; this one had been turned around in auction for a fair profit! He had also acquired an amount of Hornby O gauge items in pristine mint and boxed condition that he was endeavouring to value.

Matchbox.

This company have recently released a steam vehicle with trailer in the livery of Frazers of Ipswich...very colourful and I think that quite a few visitors to the event where purchasing them as Christmas presents; the ladies seemed to be particularly snapping them up...obviously for their husbands!

Many would-be contributors to Airfix Magazine came especially to see the Ed and it was good to put faces to names and voices. I think I managed to get the message across to all; as was pointed out last month,

we'll be looking for a good broad spectrum of subject-matter...would prefer contributions to be shortish and to the point enabling us to include as large a variety of subject as possible each month...and every month's contributions will be adjudged on their merits with no one being offered a 'reserved' space each month! The magazine with one or two articles of a length of about 8 pages each on specialised subjects has we feel 'had it's day!' The appeal of the new Airfix has to be broader. Only exception will be the review type columns of new product which will be done in house by editorial staff.

Code 2 Matchbox.

Ken Noakes is a collector who has rapidly become an expert on the various Matchbox codes...code 1 denotes that a model is completely ex-factory and contained in the manufacturer's catalogue; code 2 is a model manufactured exclusively by the factory for another concern whilst code 3 is an altered vehicle, not necessarily with factory permission. He had a marvellous collection of vehicles; the Aussie Arnotts has now reached £120, this one having been manufactured especially for that market...the Sunlight Soap also reaching quite a high price! If you have any stashed away...hold on to them!

To sum up...a great day out was had by all. Santa Claus was there from one of the local Infants Schools...Forge Lane and a group of musicians led by Rodney Bourne played festive music in the foyer where toys were collected for needy youngsters. Money was also raised for the Lindon Bennett School for Handicapped Children... what more to say than, this is what the hobby should be all about!



David Vanner and wife Betty: U.K.'s leading waterline ship model purveyors.

N.B. Next Heathrow event: 22nd March at Feltham Community School, Browells Lane, Feltham, Middlesex.

THE SCORPION RECONNAISSANCE VEHICLE

By Bob Morrison



A Royal Armoured Corps SCIMITAR with flotation screens removed.

In the late Fifties feasibility studies were undertaken to find replacements for the British Saladin and Ferret armoured cars.

The basic requirements were for a vehicle which would be airtransportable ie. weigh less than 8 tons and be no wider than 7'10" (2388mm). It would have to fulfill the three basic roles of fast reconnaissance, anti-tank and fire support.

After several design studies and considerable "in-fighting", it was decided to develop two separate vehicle types. One wheeled and the other tracked. The first tracked test vehicle (TV15000) was developed during 1964/5 by the Fighting Vehicle Research and Development Establishment at Chertsey, later to become the Military Vehicle Engineering Establishment, now Royal Armament Research and Development Establishment. It had aluminium armour and a Rolls Royce B60 Ferret engine, and initially hydropneumatic suspension. The basic requirements were expanded to cover armoured personnel carrier, armoured ambulance, recovery and command post vehicles, which dictated the basic shape and layout of the hull engine transmission etc.

Alvis Limited, of Coventry, manufacturers of the Saladin, were awarded the initial order for 17 prototypes of the Combat Vehicle Reconnaissance (Tracked) and Daimler of Coventry, makers of the Ferret, received the order for the Combat Vehicle Reconnaissance (Wheeled).

The first CVR(T) rolled out in early 1969 and after extensive trials an order was placed for 2000 plus vehicles for the British Army.

The first production vehicle was delivered early in 1972 after being formally accepted for service in December 1971.

At about this time agreement was reached with Belgium for the co-production of Scorpion and Spartan, the first Belgian Scorpions entering service in May 1973. To date about 3000 Scorpions and variants are in service with Britain, Belgium, Brunei, Canada, Eire, Honduras, Iran, Kuwait, Malaysia, Nigeria, New Zealand and the United Arab Emirates. As well as the British Army, the Royal Air Force Regiment use the Scorpion family and the Royal Marines are getting them in 1987.

Scorpions have seen active service in the Falklands campaign and the Iran/Iraq war and have been extensively used by the British Army from the humid conditions of Belize to the arid deserts of the Middle East and the Arctic climes of Northern Norway.

FV101 SCORPION

The Scorpion is the fire support variant of the family armed with a 76mm gun developed from the Saladins. It fires High Explosive, High Explosive Squash Head, canister, illuminating, smoke and practice rounds in a mixed load of forty rounds. Secondary armament is a 7.62mm co-axial machine gun for which 3000 rounds is normally carried. Originally the M.G. was used for ranging but nowadays an LV10 laser range finder is used. An L23A1 passive night sight is generally mounted to the right of the main armament. Dual smoke discharger clusters are mounted on the turret.

The driver sits to the left of the engine compartment, in the front hull and the com-

mander and gunner sit in the turret, which is set well to the rear of the vehicle. The engine is a de-rated 6 cylinder 4.2 litre Jaguar engine producing 195 bhp. which gives excellent power to weight ratio, and a maximum speed in excess of 50 mph.

To give some idea of size, Scorpion is about the same length and width as a WW II Panzer II Ausf. C but weighs nearly a ton less, or roughly the same size as an American Stuart tank, but only two thirds of its weight. At this stage it should be noted that the Scorpion is not a tank but a tracked armoured car.

Collapsible flotation screens are fitted to the vehicle as standard, but nowadays they are generally removed from vehicles on operational service unless their role actually demands a wading capability of more than 1 metre.

The crew are protected by a positive pressurization N.B.C. filtration system, and has Clansman radios for communication.

Two CVR(T) can be transported in a Lockheed C-130 Hercules and air-dropped on special platforms, or one can be slung under a Chinook helicopter.

FV102 STRIKER

Striker is the anti-tank element in the Scorpion family, armed with five Swingfire guided missiles, in ready to use bins mounted on the rear of the hull.

The missile bins which are hydraulically raised by 35° from the horizontal for firing, can be re-loaded with five spare rounds carried inside the vehicle, through a hatch in the roof in front of the bins. The crew are not protected during this operation.

The hull shape and silhouette with the missile bins lowered is deliberately the same as an FV103 Spartan armoured personnel carrier, as the vehicle is a prime target for enemy tanks and helicopters. The only noticeable difference apart from the rear flaps on the missile bins is the sighting device in place of the right hand front roof hatch.

This vehicle is fitted with flotation screens which are slightly different from Spartan to compensate for the bins, but like Scorpion, they are generally removed for operational service.

The missiles may be remotely fired from a distance of about 100m, which allows the vehicle to be hidden while the operator works from a forward position of better visibility. The wire guided missile with High Explosive Anti-Tank warhead weighs about 28 kg and has a maximum range of 4 kilometres. Defensive armament is a 7.62mm General Purpose Machine Gun on a remote mount beside the commanders turret.

Striker entered service in 1979.

FV103 SPARTAN

This Armoured Personnel Carrier variant is used for transporting four-man special purpose teams and Royal Engineering Assault sections. The vehicle, which has a crew of three, can also be used as a Striker re-supply vehicle. It is not a prime carrier such as FV432 or Warrior (MCV80). A stretched version known as Stormer has been produced, which will take a 10 man squad and a crew of two, but this has not officially entered service yet with the British Army.

The Spartan is the same shape in plan as Scorpion but the hull has vertical sides and a flat roof with sloping sides. There are two circular roof hatches and a two piece rectangular hatch over the troop compartment. A commanders Cupola with night sight and remote operated G.P.M.G. is generally fitted over the hatch on the left. Once again screens can be fitted if required.

FV104 SAMARITAN

This version is an armoured ambulance version with the ability to carry a) four stretcher cases b) two stretcher cases and two sitting wounded or c) five walking wounded, in addition to commander, driver and medical orderly. In peace time the commander doubles as medical orderly which increases carrying capacity by one seated casualty.

The vehicle which is 300mm higher than Spartan has an airconditioning pack, flotation screens and a prominent storage basket on the rear roof.

It is unarmed and carries large red crosses as per the Geneva convention, although canvas covers can be used to obscure the crosses when they would compromise other vehicles in the locality, being visible from a great distance, especially from the air.

FX105 SULTAN

The Sultan Command Post uses the same hull as the Samaritan and is fitted with a canvas penthouse to the rear to give additional space. The vehicle is equipped with map boards, extra lighting, air conditioning and up to four radio nets.

The internal equipment of each Sultan varies with its role as the vehicle is used by armoured, artillery and mechanised formations. Armament is usually limited to a roof mounted G.P.M.G. Flotation screens can be fitted.



SPARTAN Armoured Personnel Carrier.

FV106 SAMSON

The armoured recovery vehicle variant has a Spartan hull with many interior and exterior modifications.

A variable speed heavy-duty winch is mounted inside and a pair of spades are mounted in the rear hull. Using a 4:1 snatch block, Samson can pull 12 tons, ie 1 1/2 times its own weight. The vehicle also has a small jib crane and is festooned with storage bins and extra tools. It has a crew of three. There is a G.P.M.G. for defence, and flotation screens may be fitted.

FV107 SCIMITAR

The Scimitar is basically the same as Scorpion but has a 30mm Rarden cannon instead

of 76mm gun. There are some minor differences between turrets of both vehicles and the passive night site may be a different type.

Scimitar can be easily differentiated from Scorpion by the longer thinner barrel which projects past the front of the hull. Flotation screens may or may not be fitted.

SCORPION 90

This vehicle, armed with a 90mm Cockerill gun, has been developed for the export market, although it is being tested by the British Army. It has been purchased by Malaysia and evaluated by USMC Light Armoured Vehicle project.



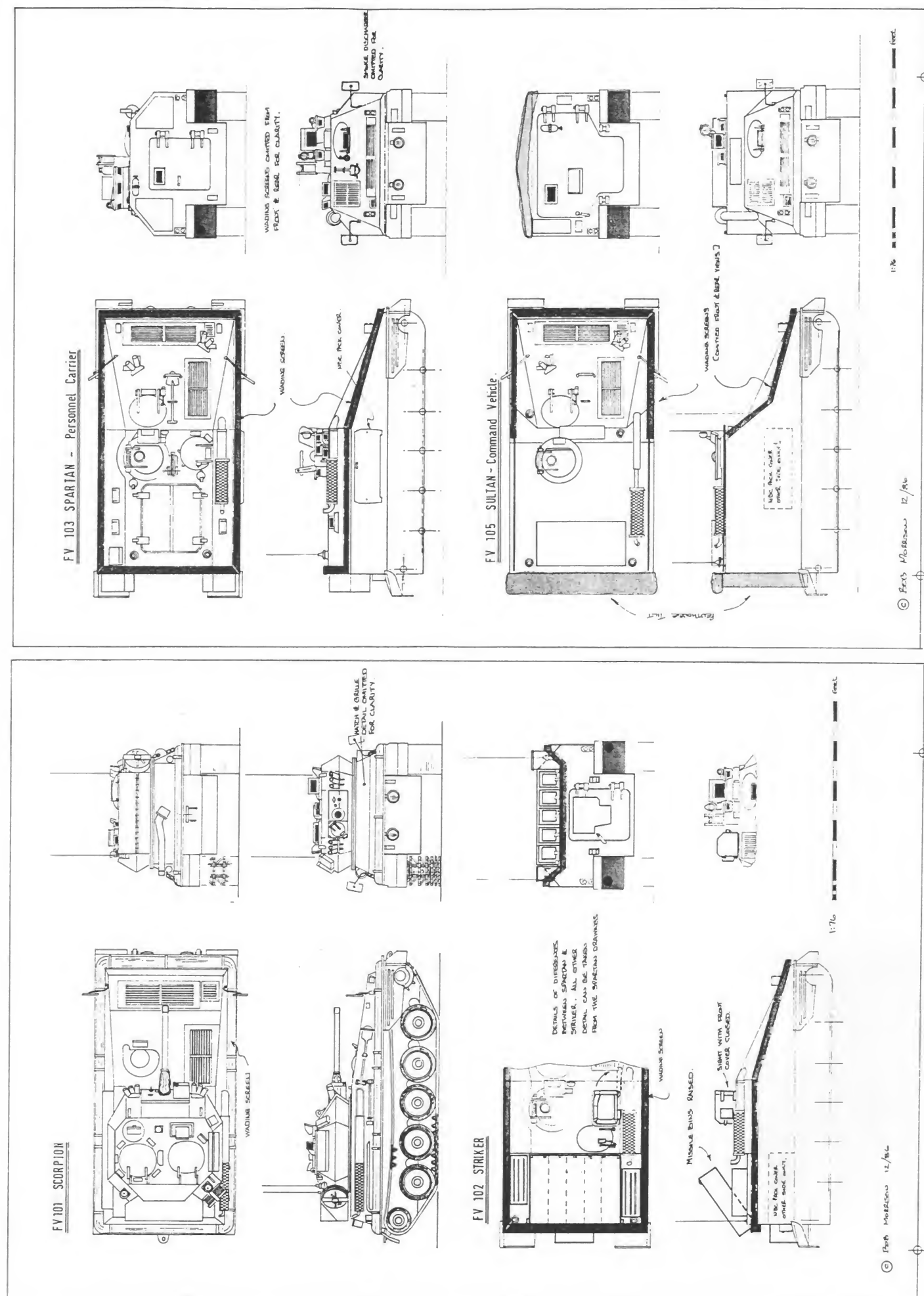
SCORPION undergoing maintenance at Bovington: note the rubber track pads & tyres.

R.A.C. Display Team SCORPION without flotation screens.

**FV4333 STORMER**

Stormer was designed by MVEE who sold manufacture and marketing rights to Alvis Limited in 1980. The vehicle is basically a stretched and widened Spartan.

Alvis supplied three Stormers each with a 25mm Hughes chain gun in a turret to the US Army/USMC LAW project, and 25 Stormers to Malaysia armed with either 20mm Oerlikon cannon turrets (12 vehicles) or twin 7.62mm MG Thyssen Henschel turrets. Several other variants have been planned.



MODELLING THE SCORPION AND SCIMITAR

The Airfix Scorpion is a pretty accurate kit of an early production Scorpion. The only major fault is that the lower hull is too narrow by about 1½mm. However this does not detract from the look of the finished model. The front light arrangement is totally incorrect having a bank of four headlights instead of the two stalk mounted lights on the actual vehicle - I suspect someone has used a picture of an Abbot S.P. gun by mistake, although prototype vehicle 00SP94 did carry a second pair of lights (possibly infrared).

The sixty-five part kit includes four alternative parts which enable a Scimitar to be built instead. Although the kit is twelve years old it stands up very well against any recent releases in this scale, having just enough raised and scribed detail to produce an authentic look without overdoing it. I feel that there is nothing worse than masses of out of scale straps, belts and stowage hooks on vehicles in this scale - how much fine detail can you see on a real tank at 75 yards?

The only things which need to be added to either kit vehicle are aerials and stowage. The British Army believes in uniformity, so generally any extra stowage bins and baskets will be seen on all vehicles in a regiment. The average squaddie however does not feel comfortable in the cramped interior of an armoured fighting vehicle so he shifts anything which he considers unnecessary for comfort or efficiency outside the vehicle. I therefore suggest that you work from photos when adding stowage to your model.

MODELLING VARIANTS

The basic hull shapes of all Scorpions variants are straightforward to model, being just a series of flat panels.

Start by cutting a piece of 0.75mm (30 thou.) plasticard to the basic plan dimensions of the vehicle (this part will not be rectangular, as the front mudguard plan

This STRIKER has the missile bins raised and retains its flotation screens.



Rear view of an R.A.F. Regiment SULTAN command post at Middle Wallop A.A.C. airfield.

profile is needed) less 0.75mm from rear and both sides to compensate for the sides and rear panel. Kit parts (34) and (39) will require their back ends to be cut square, as the back panel is a vertical plate. Assemble stages "4" and "5" as per instructions. The part you have just made from card will replace kit part (56) - note that a large hole should be drilled in the middle to let out cement fumes from what would otherwise be an enclosed box. Cut the light cluster from part (59) and sand smooth. Assemble parts (56) & (57) with stages "4" & "5" and cement the assembly to your substitute for part (56). Cut the two side panels (allowing for mudguard profile) and the rear panel, add and scribe doors panels and fine detail then add to your lower hull assembly. I find that small lengths of plastruct angle against the inside faces of mating panels help to keep assemblies square and true. Next add the roof sections with any necessary roof detail and hatches. The Spartan/Striker/Samson hull in particular will benefit from an internal bulkhead at the front of the roof to help keep the desired shape during assembly. When the sides and roof are completely rigid (I'd allow 24 hours) you can add the glacis plate and front sloping sides. An easy method of depicting the engine compartment grilles is to cut the kit glacis plate out of part (60) with a razor saw, then carefully sand down the part until just the raised grilles remain.

Although this is a lengthy process, very

good results can be obtained. A handy tip which I picked up from an aircraft vac-former (although I've yet to see Doug Feeney finish one) is to fix sheets of fine, medium and coarse "wet and dry" paper to a sheet of toughened glass to give an ideal sanding table.

Much of the additional detail such as hatches, exhaust, vision blocks etc. can be taken from the Scorpion kit and modified to suit. The commanders cupola, however, will have to be scratchbuilt from different sized laminated circles of card to give the correct shape and stowage bins and boxes will need to be made from card. Radio aerials from stretched sprue and driving mirrors from shaped plasticard on stretched sprue arms, will transform either the basic kit or your conversion. Muzzle covers and tarpaulins can be added from tissue paper soaked in a mixture of acrylic paint and watered down PVA glue.

British Army Vehicles are nearly always camouflaged with black patches over the base colour of NATO matt green. RAF regiment vehicles however seem to be plain NATO matt green only. In Norway vehicles are overpainted white and in the desert they are painted sand. Markings are generally confined to black registration plates with white characters, yellow or grey bridge classification circle with black No. 10 on front hull and occasionally the Union Flag front and rear. However it is also possible for vehicles to have a troop number, letter or symbol in a prominent position, although no hard and fast rules seem to apply.

Next month's issue will contain drawings for the Samaritan and Samson versions and details of the new Spartan MCT Milan Compact Turret.

I'd like to express my thanks to Capt. Stephenson, Lt. Longson, Staff Sergeants Andy MacFadden and Bill May and Corporal Pocock of the Royal Armoured Corps for their help in producing this article.

BOB MORRISON

EDITOR'S NOTE:

The plans for the Shorland in the December issue had to be reduced. To return to scale, please enlarge to 149%.

SUPER ETENDARD - DASSAULT'S SUPER STRIKER

The lethal effectiveness of modern war machines was brought home to the public in 1982 when almost by surprise, Britain found itself in the midst of an armed conflict with Argentina. Nobody doubted the capabilities of the British Sea Harrier, but another aircraft, almost unknown to many British people, soon hit the headlines with devastating results, following the destruction of HMS Sheffield. Dassault's Super Etendard, together with its Exocet missile, was without doubt the most serious threat to the British Task Force.

The origins of this aircraft are within a 1953 NATO competition for a light strike fighter, and a similar French air force requirement. Dassault was thus prompted to produce three designs - the Mystere XXII, the Mystere XXVI and a private venture, the Mystere XXIV, which became the Etendard II, VI and IV respectively. The latter aircraft possessed a significantly higher reserve of power than the other aircraft, thanks to the installation of a SNECMA Atar turbojet. When NATO interest in the aircraft began to fade (the Fiat G91 becoming the nearest thing to a 'NATO fighter' that was ever actually built), Dassault decided to proceed with development of the more powerful mark IV Etendard design, and eventually the French Navy took an interest in the project, as they were actively seeking a new shipborne fighter aircraft for their new carriers, the 'Clemenceau' and 'Foch'. The first Etendard IV had taken to the air for its maiden flight on 24th July 1956, and a further seven development aircraft were constructed to explore the catapulted take-off and arrested landing requirements made by the Aeronavale. These aircraft were known as Etendard IVMs, some 69 production aircraft being delivered between 1961 and 1965, together with 21 reconnaissance-configured Etendard IVPs. By the beginning of the 'seventies, France was already looking at possible replacements for the Etendard, seeking an aircraft with a supersonic capability, that could still be operated within the confines of the Navy's carrier limitations. The American Skyhawk was a good choice, and the larger A7 Corsair was also considered, becoming a very



Aircraft No. 66 gives a good view of the nose radome, and intake area. Note the small pitot sensors and the metal strips over the black radome, and the small metal point at the tip of the nose.

likely candidate, but as one might expect, France eventually decided that their choice should be directed towards a French aircraft, which resulted in a navalised version of the SEPECAT Jaguar being evaluated, this aircraft being a joint Anglo-French design. Even this aircraft was later abandoned, due to financial limitations, but also political considerations, and the final result was a decision to modify the Etendard, and thus produce the 'Super Etendard'. The main advantage to this approach, was that the new aircraft would possess a 90% commonality with the older Etendard design, which would result in huge savings, over the cost of all the rival designs. It would be fitted with a new, more powerful Atar 8K-50 engine, and would be able to carry the then new AN52 thermonuclear weapon, and the Aerospatiale Exocet missile, together with Matra air-to-air missiles. The new private-venture design became the clear choice for

the French Navy, as a high-performance stop-gap aircraft until a completely new design could be produced to operate from France's new nuclear-powered carriers, intended for the 1990's. Of course, Dassault's claim of '90% commonality' was somewhat optimistic and in actual fact, the Super Etendard finally possessed just 10% commonality with its older relation. The need for the many variations to the design was largely due to the uprated Atar engine (an unreheated version of the Mirage F1's powerplant) which needed rather more space within the fuselage structure, and therefore, necessitated the re-design of the fuselage contours. With this in mind, Dassault decided that the wing ought to be re-designed as well, to incorporate high-lift devices for carrier operations, these being double-slotted blown flaps, and wing leading edge blowing. The wing-blowing device is a set of small air vents, which allow

Aircraft No. 63 was formerly with No. 17F Flotille of the French Navy (Aeronavale). Now with 14F (a worn badge visible on the fin) the aircraft carries the current two-tone grey camouflage scheme.

Note that the two underwing fuel tanks are painted in a uniform light grey, whereas many aircraft carry two-tone camouflaged examples.



high pressure air (usually bled from the engine) to be fed out over the wing and flap upper surfaces, to create a layer of slightly lower air pressure, which in turn gives the wing a greater lift. The result of this installation is a lower approach speed when landing. Together with other smaller modifications, the new wing design allows the Super Etendard to fly with a performance similar to the Etendard IV, despite a higher all-up weight. The nose section houses a Thomson-CSF/Dassault Agave radar, which can be operated in air-to-ground and air-to-air modes. Thanks to its modern micro circuitry it can also provide head-up display information for the pilot, as well as target designation information for the underwing missiles, whilst still being comparatively lightweight. Also installed is an internal navigation system (INS) which is a vast improvement over the Etendard IV's TACAN (Tactical Air Navigation Equipment) that relies on homing signals from either an airfield or carrier. Fixed internal armament consists of two DEFA 552 cannon, each with 125 rounds, and apart from the previously-mentioned weaponry, rocket launchers, practice bombs, 600 and 1100 litre fuel tanks and a hose/drogue refuelling pod can also be fitted (the Super Etendard having a nose-mounted retractable refuelling probe). The first Super Etendard (and next two) were in fact conversions of Etendard IVs, the first aircraft still being fitted with its old-style wing, and flying for the first time in its new guise on October 28th 1974. The second aircraft also retained its older wing, and it was the third aircraft that first flew with the new flying surfaces. After flight trials, the wing was re-fitted to the first Super Etendard prototype, which then became the definitive-standard aircraft, flying on 3rd October 1975. The first production aircraft first flew two years later, and deliveries to the French Navy began in June 1978. Originally a batch of 100 aircraft was planned, but budgetary restrictions limited the actual deliveries to 71 aircraft. As a result the French Navy never actually completely replaced its Etendard IVs, and today a small number of IVs still fly on training duties, and Etendard IVs, perform shipborne reconnaissance duties. One squadron of vintage F8 Crusader interceptors still remain in service too, and this mix of aircraft is likely to remain very similar, until the new 1990's naval aircraft (probably a derivative of the Rafale demonstrator) is delivered.

Export orders for the Etendard IV never materialised, but in 1983 five Super Etendards were delivered to Iraq, reportedly on loan, together with a stock of Exocets. The aircraft stayed for two years, until deliveries of Mirage F1s were made, and during 1984 Iraq's Super Etendards were regularly used to mount Exocet missile attacks against oil tankers in the Persian Gulf. However,

despite the rather aggressive use to which Iraq's machines were put, it was Argentina that first demonstrated the Super Etendard's capabilities, in 1982.

In 1979 Argentina ordered 14 aircraft to replace the fleet of A-4Q Skyhawks used by their navy. 50 naval personnel were sent to France for training on the type, including instruction on how to operate the Exocet missile, which was to be the aircraft's primary armament. The first five aircraft arrived in Argentina in November of 1981 and with them came a batch of five Exocets. For the next four months No. 2 Escuadrilla worked-up on the type, and during this intensive training period the remaining nine aircraft were placed in storage at Bordeaux until they were required. It was planned to deliver a further five aircraft from the stored machines in April of 1982. Of course this particular month became one of the most significant in modern military history, when at 1300Z on the 2nd April, the Falkland Islands Governor Sir Rex Hunt, formally surrendered to the Argentine troops which had landed on the islands. Shortly before this on the 31st March 2 Escuadrilla had been ordered to bring the Super Etendards to a full operational status, and by the middle of April the unit declared themselves ready for action. Because of the hostilities France no longer supplied any support to Argentina and so the unit was left to train alone, for long distance missile attacks against British shipping, in radio and electronic silence, at low

ping, in radio and electronic silence, at low level, over the sea. Fortunately for Britain, Port Stanley's runway was just too short to support Super Etendard operations, so any attack missions would have to be flown from the mainland, as the sole Argentinian aircraft carrier '25 de Mayo' was not ready to accept Super Etendards (strengthening of the deck still being conducted at the time). It was decided to fly the aircraft in pairs, with one aircraft refuelling the other in 'buddy-buddy' fashion, with initial refuelling support from KC-130H Hercules refuelling tankers. Four aircraft were deployed to Rio Grande, with a fifth kept in storage, as a spares source for the other aircraft. The five precious Exocets were also taken to Rio Grande. On the 2nd May, the first mission was launched against the British Task Force shipping, however during the refuelling phase one of the aircraft failed to make a successful contact, so the mission was abandoned. On the 4th May a Navy Neptune made contact with the British shipping and the second attack sortie was launched. The two Super Etendards were brought from their 'hides' on a nearby highway, and out onto Rio Grande airfield for take off, each aircraft carrying a long range fuel tank under the port wing, and an Exocet under the Starboard.

They first made contact with the Hercules refuelling tanker, and then flew a further 250 miles, before descending to low level to continue their attack in total radio silence, at



Aircraft No. 5 compares well with the similar view of No. 66, showing the obvious differences found on newly-camouflaged aircraft. The white code numbers are now painted in the lighter grey used within the two-tone camouflage scheme. This 'counter-shading' technique means that the light grey numbers (and 'Marine' title) can only be applied over the darker grey, and when modelling the aircraft, it is therefore important that the lighter of the two grey paints matches precisely the grey decals. Unfortunately at the moment, no decal sheet carries grey 'Marine' titles.



Starboard undercarriage, inner face, revealing that these comparatively new aircraft have very clean landing gear components. Note the tread on the tyres.

wave-top height. From three ships that were in the vicinity the largest was chosen as the target, and both aircraft briefly climbed to 500ft to check that the ship was located in the correct position on their radars, in relation to the position indicated by the Neptune. When they reached their search height, they found that the target wasn't yet visible on their radars, so they quickly descended once more, but by this time the British radars had spotted them, and Sea Harriers were scrambled from 'Invincible' to intercept them. After another 25 miles the two aircraft 'popped-up' for another search, and this time they found their target on the radar screen. After updating the missile attack programme, both aircraft launched their Exocets from a range of 20-30 miles before turning back to Argentina. One missile was deflected by ECM (Electronic Counter Measures) and flew into the sea, but the other struck HMS 'Sheffield' with disastrous results, the ship being destroyed, and later sinking. The two Super Etendards had performed their task with chilling efficiency. Three weeks later another attack mission was launched but neither aircraft could locate a radar target, and the pair returned home, after a high speed/low level departure caused by the interest of nearby Sea Harrier pilots. A couple of days later another mission was launched, and the Super Etendards again approached their target at under 50ft at high speed, launching their Exocets against a large radar target. Again one missile was deflected by either ECM or anti-radar 'chaff' (thousands of tiny strands of metal, which present a false radar image), and fell into the sea. The other hit the 'Atlantic Con-

veyor' destroying the ship and its cargo of aircraft and supplies. Thus only one Exocet missile was left in Argentina's arsenal, and a final attack mission was prepared, this time with just one armed aircraft, and an unarmed 'buddy'. In the mistaken belief that the previous mission had damaged 'Hermes', the carrier 'Invincible' was chosen as primary target, and in order to reach this heavily defended ship, a 'back door' approach from the South-East was planned. This final mission was quite an ambitious event, as in order to maximise the effect of this attack, it was decided that four air force A-4 Skyhawks would accompany the two Super Etendards to the target, carrying on to the ship after the Exocets had been launched, to drop conventional bombs on the shipping, during the predicted confusion. The four Skyhawks meant that another KC130 would be needed for the pre-attack refuelling, and the whole combined force set forth, until, at a distance of 24 miles from their radar target, the last Exocet missile was fired, the four Skyhawks continuing in pursuit, whilst the Super Etendards turned for home. Exactly what happened to the last missile is unknown. It appears to have been deflected by ECM/chaff, as it didn't destroy any target, and certainly not 'Invincible' which was at least 40 miles away. The radar image was probably the frigate 'Exeter', and although the Skyhawks did inflict considerable damage, the last Exocet had been used without effect. With this weapon used, the Super Etendard's part in the Falklands conflict was over, and it wasn't until December



Nose landing gear, which is unpainted, reveals the rear nose gear door hanging down, contrary to the raised position represented in the Heller/Humbrol kit.

of 1982 that the remaining nine aircraft were delivered to Argentina, together with more Exocets. Six of the aircraft are now in store, whilst the rest now fly from the carrier '25 de Mayo'.

In 1983, France also used the Super Etendard 'in anger' when four aircraft attacked Druze militia gun emplacements in the Lebanon, when the aircraft formed part of the UN peace-keeping force. For the future, France already has a replacement aircraft



Port main undercarriage well, looking rearwards. The fuselage gear door hangs down, as represented in the Italeri kit (the Heller/Humbrol kit has doors moulded into the fuselage in the raised position. Note the masses of pipes, and the generally clean appearance of the wheel well).

in mind, and so the end of France's long association with the Etendard family appears to finally be in sight, whilst Argentina's is probably only just beginning. Despite the fact that the Super Etendard isn't comparable with many of the high-tech warplanes common to the world's air forces (it is little more than a 'stop-gap' design), there's no question that with the deadly Exocet missile as a companion, a more effective war machine cannot be imagined.

Kits and decals

Two kits of the Super Etendard are currently available, these being from Heller/Humbrol and Italeri. Humbrol's kit is available in two versions, one with parts to produce the earlier Etendard IVM, and the other the later Super Etendard. Both kits are essentially the same in basic layout and detail, although the appropriate shape variations are incorporated where required. Surface detailing is a mixture of raised and engraved panel lines, which are acceptable, but a little on the heavy side in parts. Cockpit detail is almost non-existent, with little more than a basic 'bathtub' arrangement. The decal sheet does include a representation of the instrument panel, but even this is very basic, and some further detail work is desirable. The ejection seat is a somewhat clumsy affair which would be better replaced with a metal seat from the 'Aeroclub' specialist range. Wing flaps are provided as separate items, allowing the modeller to fix them in either retracted or extended positions, and the airbrakes are also included as separate items, with actuating jacks, allowing the builder to cement them in the extended position if desired. Undercarriage parts are quite good, but the main wheels do look rather heavy and bulky, in comparison to the airframe. Two underwing fuel tanks are provided in the IVM kit (which is a standard fit on most French Navy aircraft), but only one tank is included in the Super Etendard kit, the other wing station being occupied by an Exocet. Gun pods are also included. The decal sheet in both Humbrol kits is of a typical Heller standard, ie - fairly good, but sometimes out of print register, and with a fairly thick carrier film (which often has a yellow tint to it). However providing that the ink colours are all printed in register (especially on the complicated French roundel), the markings could be successfully used, both kits providing markings for typical French Navy machines in the old blue/white colour scheme.

Like Humbrol's kit, Italeri's is also to 1/72 scale, but only one version is available, this being for the Super Etendard. The standard of this kit is much higher than the former example, with excellent surface detailing (engraved lines) and a good selection of minor details, such as some very delicate

numbers will lose their effect. All the colours are printed in register in most of the kits, and perhaps the only unfortunate point about the decals, is that they have a matt finish carrier film, which can make the decals rather reluctant to stick to the model, sometimes. Possibly the most interesting part of the sheet is the selection of markings for Argentina's aircraft No. 03, which performed the attack on HMS Sheffield. Full decal markings are provided for this aircraft, even the small stencil markings on the side of the nose, denoting the attacks on HMS Sheffield and the Atlantic Conveyor.

For those with a particular eye for quality, Microscale also include the latter aircraft on one of their sheets (along with other Argentinian aircraft), which can be obtained from Hannants of Lowestoft (check for price and availability). For conversion fans, Graphy-Air of France produce a very attractive set of resin-moulded parts, to enable the modeller to build the reconnaissance version of the Etendard IV (the IVP) from the Heller IVA kit. A new nose section includes the revised shape that incorporates the camera ports, and the refuelling probe. The second battery of cameras is fitted within a faired-in pod under the fuselage and this item is also included as a resin part. Also in the kit is the air-to-air refuelling hose and drogue pod, which is carried by both the Etendard IVP and the Super Etendard. A set of four etched metal blades is even provided for the ram turbine on the front of the pod, and with this item you can not only produce the interesting IVP, but also make a very nice variation blade aerals. The undercarriage parts are particularly impressive, incorporating plenty of detail, and all to scale, in proportion with the aircraft. The cockpit is perhaps disappointing, with little more to offer than the Humbrol example, the ejection seat being just as basic, and without any instrument panel decal at all. For some reason two canopies are provided (they both appear to be the same) and on the credit side they are separate to the forward windscreen (as in the Humbrol kit) so that an open canopy can be chosen. The tail arrestor hook can be fixed in the lowered position, as can the airbrakes. The flaps are

integral with the wing in this kit, which means that these parts would have to be cut away from the wing and re-attached, if the extended configuration was required. Two underwing fuel tanks are provided, along with Matra AAMs and of course, an Exocet missile. The decal sheet is of quite a high standard, with markings for French Navy machines in both the old colour scheme, and the new two-tone grey scheme now being applied to France's aircraft. The Grey code numbers match one of the two greys used on the aircraft, so the modeller must ensure that the paint is the same colour as the decal, otherwise the 'counter-shaded' on the normal Super Etendard kit, thanks to the refuelling pod. Alternatively, the pod could simply be fitted to the IVP. Two decal sheets are included, one with the small insignia used on the current two-tone grey aircraft together with black decals intended to represent the camera ports. The second is a real gem of a sheet, with codes to build literally any French Etendard in the older colour scheme. Squadron insignia for every French Navy unit is included, together with grey codes for a current two-grey IVP example. A large selection of stencil data is provided too, all printed to a fairly high quality. Two instrument panel decals are included which are certainly an improvement to anything found in the two 72nd scale kits. The instruction sheet is also a delight with extensive colour scheme details, and a set of 72nd scale plans for the Etendard IVP. This very attractive conversion set can be obtained from Maintrack Models of Hastings (check for price and availability).

Rather surprisingly, no 48th scale kit yet exists, although the very old Heller kit of the Etendard IVA can still be found, which is produced to 1/50 scale. It is very basic, and requires a lot of work to bring it up to standard, even if you do manage to track one down! Another rather obscure kit is the Heller Cadet kit of the IVA to 1/100 scale. This too can be found in places, and providing you're willing to spend some time improving the kit, it can be made into quite an attractive model.

TIM LAMING



Aircraft No. 66 carries the markings of 14F Flotille, although constant airflow has damaged the unit marking. Note the tailplane attitude indicator stripes, and the natural metal surround to the wing tip anti-collision light.

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- 04013 McDonnell F4 Phantom
- 04014 Dornier DO17
- 04015 Martin B26 Marauder
- 04022 Dassault Mirage
- 04025 F16 Fighting Falcon
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- 04027 Tornador GR1
- 04028 Lockheed U2
- 04031 Dassault Mystere B2
- 04032 McDonnell Douglas F18A Hornet
- 04033 Douglas Bostorm
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- 04035 Spitfire VB 1/48

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- 05005 Flying fortress B17G
- 05007 Consolidated PB1Y-5A Catalina
- 05008 Junkers JU.52
- 05009 Heinkel HE177
- 05013 F14A Tomcat
- 05014 Lockheed S-3A 'Viking'
- 05015 F15 Eagle
- 05016 F105F Thunderchief
- 05017 Mil 25 Hind
- 05019 N.A. Vigilante RA-5C

- 05020 Douglas Dakota AC-47 Gunship
- 05021 Heinkel HE III
- 05101 Sea Harrier FRS1 1/48

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- 06003 Jolly Green Giant
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- 00502 Mig F5-E Tiger II
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- 01751 US Paratroops
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- 51574 Modern British Infantry
- 51575 Modern German Infantry



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